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Community Perceptions of Mining: An Experience from Western Ghana

by

Emmanuel Ato Aubynn.

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of *Master of Science*

Department of Earth and Atmospheric Sciences

Edmonton, Alberta

Fall 2003

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Department Civil and Environmental Engineering

August 20, 2003

Abstract

Mining operations in Ghana since the mid 1980s have experienced a tremendous shift, from predominantly state-controlled to private ownership. Also, surface mining has by far become the most predominant method of mining, and it occurs mainly in areas where the people are tied to the land. The change in ownership structure and mining method has had major implications for companies and their relationships with resource communities. Communities look to companies for employment and development assistance as compensation for mining on community lands, and there is general discontent among community members when employment and development expectations are not realized. This discontent has sometimes resulted in company/community conflicts. These conflicts not only have resulted in loss of corporate properties and arrest of community members, but also have the potential to retard investment into Ghana, since a prime consideration for investors is security for themselves and their investment.

Using primarily qualitative methods, this study documents the complex relationships between three gold mining companies and their closest neighbouring communities in Western Ghana, to gain an understanding of the perceptions of local communities about mining projects. The study revealed that high community expectations of companies, differing company/community perceptions of what constitutes realistic versus unrealistic demands, companies dismissing and denying community grievances and perceived negative attributions, and ineffective government facilitation of company/community interactions, are sources of poor company/community relationships and hence, conflicts. The study concluded that mining companies could improve company/community relationships by committing more than the current share of the mining benefits to community long-term development, honouring resource

development promises made to communities, consulting and involving communities in the decision making process in all stages of the mine development, and becoming proactive in restoring the environment to its pre-mining level.

Dedication

I dedicate this thesis to my dear wife, Esther Ethel Aubynn, and beloved son, Nathaniel Nana Aubynn, whose endurance, encouragement, material support, and sacrifices in Ghana gave me the needed concentration to embark on this arduous task. Ethel and Nathaniel, your sacrifices have not been in vain.

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Authorship is a lonely occupation and one that does not lend itself to a lot of delegation. But the finished product is the sum total of an enormous amount of wisdom, knowledge and experience from a host of different people. It is the willingness of many people to part with so much information that makes research of this kind possible. In view of this, I would like to thank the following people for their support and encouragement throughout this process.

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Chapter One
Introduction

The development of natural resources is often considered a vital precondition for economic growth, particularly in low-income and underdeveloped countries. As a result of advances in nature-conquering technologies, liberalization of international markets, and discovery of resources in hitherto unexploited places, investors and developers are being drawn to more remote areas at an increasing rate (Madeley, 1999; Brohman, 1996). Since the beginning of the 1990s, 70 countries, including 31 from Africa, have opened up to foreign mining companies through changes to their regulatory and legal regimes (Madeley, 1999). Black (1991) noted that tropical ecosystems around the world are being wiped-out at a rate of 25 million acres per year (cited in Brohman, 1996). In many cases, resource exploitation by transnational corporations, including mining companies, is a primary cause of this devastation and occurs within the homelands of rural or indigenous peoples who scarcely identify with the nation state, particularly in their daily life contestations (Downing et al., 2002; Thomson and Joyce, 2000; Madeley, 1999; Govier, 1997; Emel and Bridge, 1995).

As the livelihoods and survival of these communities are strongly tied to the land (McShane and Danielson, 2001; McMahon and Strongman, 1999; Govier, 1997), escalating development not only threatens the livelihoods of the people in resource frontiers, but also raises environmental and sustainability concerns. Madeley (1999) noted that, "during the last hundred years, mining has meant that probably 100 million people, most of them in developing countries, have been removed from the land where they lived and farmed" (Madeley, 1999: 87). In light of this, conflicts between mining companies and the local communities on whose lands the companies operate are not uncommon (Abrash, 2001; Antwi, 2002; Gedicks and Grossman, 2001; McShane and Danielson, 2001; Veiga, et al. 2001; *Drillbits & Tailings,* 2001; Thomson and Joyce, 2000; McMahon and Strongman, 1999; Aubynn E.A., 1998b; Boateng, 1997; Aubynn A.K., 1997). Research has shown that these conflicts primarily arise because of the diverging interests of stakeholders, such as: the interest of nation states to increase revenues by increasing the development of natural resources through private capital participation; the interest of the investor to maximize profit through exploitation of the

natural resources at minimum cost; and, the interest of resource communities, which transcends economic considerations (Kuyek, 2002; Abrash, 2001; Veiga et al., 2001; *Drillbits & Tailings*, 2001; Gedicks and Grossman, 2001; McShane and Danielson, 2001; Thomson and Joyce, 2000; Madeley, 1999; Tufour, 1997). Tufuor (1997), for instance, noted that,

> Conflicts and distortions in the use of environmental resources arise… from contradictions in our perceptions of resources' value among different users. Forest resources and agricultural lands are under-valued when it comes to mining of any sort in Ghana – be it for diamonds, gold, bauxite and manganese. Such conflicts and distortion of resource values will make the attainment of a balanced sustainable development in Ghana a very distant reality and may often aid and legitimize environmental degradation (Tufour, 1997: 46).

Thus, it is easy to understand the concerns, and hence, opposition from resource communities to the extraction of natural resources, particularly when one considers the fact that in the past there has been unequal distribution of benefits from resource exploitation (Kuyek, 2002; Kampfner, 2001; Madeley, 1999; *Washington Post, 1996,* Damman et al., 1995). "It is an elementary principle of social justice that if wealth is being produced from resources in an area, at a social cost, then everybody should receive some compensatory adjustments to the change of lifestyles" (Alan Stevens 1995; cited in Antwi, 2003:1). Thus there is general discontent among community members when development expectations are not realized. Benefit distribution is generally skewed towards the state and operating companies, thus relegating to the background the interest and welfare of the host communities on whose lands the resources are extracted. It is these past legacies, together with concerns for environmental and socio-cultural disruptions that have made the mining industry lose public confidence and hence, popular support for its activities. Meanwhile, mineral resource extraction plays an important role in the economic development of most developing countries, including Ghana. For instance, the chief executive officer of Ghana's largest gold mining company acknowledged that, "for us in Ghana, the impressive FDI [Foreign Direct Investments] we saw in the early 1990s were almost all in the natural resource sector" (Jonah, 2001:7). But the sector should not be allowed to destroy other equally vitally important resources that are necessary for the survival and viability of resource communities. Thus for sustainable development to be attained in resource communities, the diverging and

conflicting interests of stakeholders in the use of resources should be harmonized to promote a healthy relationship among companies, communities and governments.

Using primarily qualitative methods, the main purpose of my research is to identify the socio-economic and environmental impacts of gold mining activity as perceived by resource communities in Ghana using the pre- and post-mining experiences of the people in the Wassa West District (WWD) of Western Ghana.

To document community perceptions, my study attempts to answer five fundamental questions:

1. How do communities in the Wassa West District (WWD) perceive gold mining operations to have affected their socio-economic and environmental well-being?
2. What are the communities' commonly identified concerns and expectations of the mining companies and what reasons underlie these concerns and expectations?
3. Which community expectations are, according to the companies, reasonable, and which are too excessive or unrealistic?
4. What are the major sources of contention between the companies and their communities?
5. What strategies influence the chance that a community will look favourably upon mining operations?

Towards the objective of finding an appropriate answer to these questions, I specifically:

- Compared and contrasted the pre- and post-mining experiences of three gold mining communities in WWD, using certain socio-economic and environmental indicators (see Chapter Three).
- Explained each community's pre-and post-mining socio-economic and environmental experiences, using companies' environmental/social impact assessment studies as baseline information.
- Identified similarities in community experiences; and,
- Proposed recommendations to facilitate harmonious relationships between mining companies and mining communities.

The study is organized into six chapters. This chapter (Chapter One) is an introduction and overview of the study. Chapter Two looks at the background of the study, explaining why studying community perceptions of mining is important in Ghana and explains key concepts that frame the study. I also present an overview of mining in Ghana, followed by the rationale for selecting the study sites, and descriptions of the study communities. Chapter Three explains the study methods and Chapter Four presents the results, which I discuss in Chapter Five. Discussion of study results takes place within the context of the roles and expectations of the actors in mineral development, followed by a discussion of power inequity between communities and government on the one hand, and companies and communities on the other, and how communities resist this power imbalance. Finally, I discuss the concept of trust and how (dis)trust and power inequity structure the relationship between the companies and the communities. The main conclusions and study recommendations are presented in Chapter Six.

Chapter Two
Literature Review

This chapter looks at the background of the study, explaining why studying community perceptions of mining is important in Ghana. It is followed by relevant literature and key concepts that frame the study. I also present an overview of mining in Ghana, and provide the rationale for selecting the study sites. The chapter is concluded with the description of study communities.

2.1. Background to the Study.

Mining operations in Ghana since the 1980s have experienced an important shift, from predominantly state-controlled to private ownership, with most investment capital coming from abroad. Also, surface mining has by far become the most predominant method of gold mining in Ghana, partly because of the relative low cost of extraction, and near-surface ore location (Boateng, 1997; Folley, 1997; Down and Stock, 1977). The change in ownership structure and mining method has had major implications for companies and their relationships with resource communities. For example, the change in the ownership and method of mining has made it possible for communities to interact almost directly with mining companies for improved compensation. It has also coincided with, and intensified, public concern for the environment and sustainable development.

While mining companies are, arguably, concerned about these dynamics and may actively work to promote good corporate social relations, their commitments to community development and environmental stewardship are perceived by the public as inadequate to ensure sustainable development in resource communities, particularly after the mines are gone. This public perception, together with excessive surface operations on indigenous lands, is creating tension in resource communities in Ghana. A quotation from a special article on gold mining in Ghana in *The Washington Post* sums up the situation:

> There is no doubt that gold mining is precipitating a fairly steady increase in social tension. This is not a trickle-down type of prospecting. It has enriched a small number of people at the top but certainly not that many at the bottom. You see some fancy cars around town, nice houses, but the lower 40% of the population is certainly not better off than they were a generation ago *(Washington Post,* July 16, 1996).

Such tension has sometimes culminated in conflict between companies and communities. For instance, violent conflict in the form of community demonstrations, mine road blocks, burning of company properties, forcible invasion into mining pits (to pilfer ores), verbal threats to mine-workers, and mass arrest of community members are not uncommon in resource communities in Ghana. An excerpt of a newspaper description of a demonstration organized by the chiefs in the District in 1996 states:

> There was a drama at Tarkwa, a mining town in the Western Region on Tuesday, when 42 chiefs of the divisional council went on a peaceful demonstration as a result of surface mining in the area … The chiefs, clad in mourning cloth and wearing red arm bands around their waist and neck to show how serious they were, were led by the Acting President of the Council, Nana Kwadwoh Brempong III, backed by *Asafo*[1] company. They paraded through some of the principal streets of Tarkwa with placards, some of which read "our future is at stake due to surface mining;" "our lands are being destroyed;" "no more surface mining;" "where should we farm"? "Companies do not respect landowners;" "protect our environment".... (*The People's Daily Graphic*, November 7, 1996:10)

Communities perceive, and therefore use, conflict as an effective means of coercing companies into becoming proactive towards environmental responsibility and commitment to community development. Communities also perceive conflict as an effective tool to demand better compensation from mining companies for properties affected by mining operations, and also to resist excessive corporate power. These public demonstrations, however, have the potential to retard investment not only into Wassa West District of the Western Region, but Ghana as a whole, since a prime consideration for investors is security for themselves and their investment (Muchapera, 2002; Jonah, 2001). Antwi (2003) noted that, "the competition for international capital investment warrants that [Ghana] implements policies conducive to attracting capital and creating the right atmosphere for investment. The most challenging aspect is the resolution of conflicts between mining companies and local communities" (Antwi, 2003:2).

While resource communities have sometimes succeeded in using conflict to achieve their goals, such an approach to company/community relations has often led to a negative public image of the mining industry. The thrust of my study, therefore, is to identify and explain the complex relationships between gold mining companies and their

---

[1] *Asafo*, in local parlance, means local military. Most communities in Ghana have this informal local military for protection against external aggression. They are constituted mainly of the youth in the community. Singing war songs and playing traditional drums signify their readiness for war or the death of an opinion leader.

communities in Ghana's Wassa West District, and hopefully, the lessons from the study could enable mining companies and communities to negotiate acceptable relations in future project development.

2.2. Relevant Academic Literature

The following literature review addresses current debates on the impact of resource extraction on resource communities. It also highlights conceptual frameworks used in my research and justifies their use. By exploring the current issues and concepts, a case will be made for the importance of considering community perceptions in the debate and discussions about company/community relations.

2.2.1. Impact of Mineral Resource Development

Mining activities in resource-dependent communities exert considerable impact on the environment, as well as on the lives of the people living within the vicinity (Mining and Communities, 2003; Kuyek, 2002; Veiga et al., 2001; Ali and Behrendt, 2001; Thomson and Joyce, 2000; McMahon and Strongman, 1999; Macfarlane and Akabzaa, 1999; Leistritz and Root. 1999; Epps, 1997). This impact may be positive (McShane and Danielson, 2001; McMahon and Strongman, 1999; Aubynn, E.A, 1998a; Aubynn A.K., 1997), as well as negative (Hilson and Murck, 2000; Aroca, 2001; Akabzaa and Darimani, 2001; Boateng, 1997). For instance, when mining companies move to local communities, they provide employment for indigenous people; build infrastructure such as roads, clinics and schools; and, provide water and electricity (McShane and Danielson, 2001; Aubynn, E.A, 1998a; Aubynn A.K., 1997). But they may also bring problems such as residential displacement and environmental degradation (Bowles; 2003; Kampfner, 2001; Sumi and Thomsen, 2001; McAllister and Milioli, 2000; Akabzaa and Darimani, 2001; Whitemen and Mamen, 2001; Boateng, 1997; Agra, 1997)

The mining sector, while sometimes helping to solve the problems of ailing national and local economies, may also present a set of entirely new problems for resource communities because most mining projects, especially those in developing countries, are sited in localities where the people are tied to the land. In many cases, when mining activities move into mineral-rich communities, local inhabitants are forced

to relinquish their farmlands and sometimes their settlements, to make way for the projects (Mining and Communities, 2003; Abrash, 2001; Tartlet, 2001; Veiga et al., 2001; Sumi and Thomsen, 2001; Thomson and Joyce, 2000; Suorineni and Suglo, 2000; Madeley, 1999; Suglo, 1999; McMahon and Strongman, 1999; Macfarlane and Akabzaa; 1999; Aubynn E.A, 1998a; Boateng, 1997). This results in community disruption, including unemployment, cultural tension, and disruption of community norms and values (Ali and Behrendt, 2001; Veiga et al., 2001; Tartlet, 2001; Salami and Tsekpor, 2000; McMahon and Strongman, 1999; Leistritz and Root. 1999; Macfarlane and Akabzaa, 1999; Aubynn, E.A, 1998a). There are also environmental concerns about mining projects due to environmental pollution and loss of biodiversity (Veiga et al., 2001; *General News*, 2001; *Drillbits and Taillings,* 2001; Thomson and Joyce, 2000; McMahon and Strongman, 1999; Sanchez, 1998; Carboo and Sarfor-Armah, 1997; Tufuor, 1997; Down and Stock, 1977).

As a result, there are increasing questions about whether the macro-level economic benefits of the mining industry are outweighed by local development costs (Kampfner, 2001; Humphreys, 2000; Auty, 1993; United Nations, 1998; Krannich and Luloff, 1991; Yachir; 1988). Theories such as *resource dependency* (Fisher and Freudenburg, 2001; Cardoso, 2000; Ibister, 1991; Krannich and Luloff, 1991); and *resource curse theory* (Humphreys, 2000; Auty, 1993) have been applied to answer these questions. Dependency theory explains that third world development is hindered and distorted through external (colonial or neo-colonial) exploitation of peripheral satellite communities. Krannich and Luloff (1991), in their resource dependency theory, noted that communities dependent on non-renewable resources face the potential for decline when reserves are exhausted, widely influencing the "viability and vitality" (p.6) of the socio-economic and cultural life of communities. The authors observed that outside control of resources and development decisions restricts the ability of rural communities to take control of their destinies. The resource curse theory, on the other hand, states that resource dependent economies/communities may not only fail to benefit from a favourable mineral endowment but may also perform poorly economically and developmentally, compared with those less endowed (Humphreys, 2000; Auty, 1993). The authors provided three main reasons for this failure. First, the sophisticated

production technology used by resource industries restricts local employment and trickle-down benefits. Second, there is unequal distribution of returns on mining investment between investors and local economies. Third, there is lack of forward and backward linkages between the mining industry and local economic structures. Both the dependency and resource curse theories emphasize two basic problems of resource dependent communities. First, both theories highlight that resource communities face problems associated with uneven distribution of returns generated from mineral resource exploitation. Second, that resource communities face problems emanating from cyclical socio-economic instability associated with mining dependency as a result of periods of boom and bust.

The conclusions drawn by these theories are generally applicable, at least in less-developed economies, because most of the companies operating in communities are extra-local (Krannich and Lullof, 1991). Foreign-owned companies have little or no legal compulsion to re-invest mining returns in activities that could sustain communities after the mines are gone. Thus after mining operations close, most communities revert to their pre-mining state with scars of environmental degradation and attendant socio-economic problems (Kuyek, 2002; *MiningWatch* Canada, 2002; Veiga et al., 2001; Sumi and Thomsen, 2001; Aroca, 2001; Sanchez, 1998; Krannich and Luloff, 1991). These past difficulties of mining communities, coupled with the need for communities to maintain stable ecological and socio-economic environments for sustainable development, have contributed to communities receiving new projects with suspicion (Kuyek, 2002; McShane and Danielson, 2001; Strelein and Behrendt, 2001; Thomson and Joyce, 2000; McMahon and Strongman, 1999; Macfarlane and Akabzaa, 1999; Sanchez, 1998). For instance, a citizen's group in Rosia Montana, Romania, opposed a Canadian gold company from operating on its land for fear of destroying their archeologically rich cultural sites and heritage (Kuyek, 2002). Similarly, citizens of One Pute Jaya and Bahumotefe of Indonesia rejected PT Inco's plans to mine nickel on their land for reasons of poor past environmental records and community relations, unfulfilled resource development promises, and negative impact on community culture and livelihood (JATAM, 2002; *MiningWatch* Canada, 2002).

Thus mining communities perceive projects as activities that satisfy the needs of central governments and multinational companies at the expense of community lands (Kuyek, 2002; Ali and Behrendt, 2001; Akabzaa and Darimani, 2001; Humphreys, 2000; McMahon and Strongman, 1999; Aidan, 1999; Macfarlane and Akabzaa, 1999; Madeley, 1999; Aubynn A.K., 1997). This community perception is due in part to the past and present legacy of the mining industry's relationship with communities, which has often been characterized by uneven distribution of mining benefits, power imbalance, mistrust, and environmental degradation (Kuyek, 2002; *BBC News*, 2002; Ali and Behrendt, 2001; Humphreys, 2000; Thomson and Joyce; 2000; McMahon and Strongman, 1999; Madeley, 1999). Humphreys (2000), for instance, noted that, "…there is a long and undistinguishable history of central governments appropriating virtually all the rent from mining and devoting precious little to the regions where the mining has taken place" (Humphreys, 2000:8). He thus posits that communities would accept, and be publicly supportive of mining, if government could redefine its historical posture and equitably distribute mining rent to benefit communities. A manager of a mining firm in Ghana dismissed media charges that mining companies do not invest enough of their earnings into community development. He shifted blame on government saying mining companies pay a lot of money to the government in the form of dividends and royalties, part of which are meant for community development (*General News*, 2003). In the same vein, Aidan (1999) observed that companies pay large sums to government in developing countries but the centralized political system in these economies prevents remote resource communities from deriving maximum benefits from these corporate payments. Thus the general perception of people in the developing world is that the state and mining companies amass great wealth yet little is distributed in communities.

Thomson and Joyce (2000) also noted that one of the fundamental factors that shape company/community relations is the extreme power imbalance that exists between the two parties. Power, the authors noted, is skewed towards companies rather than communities. Similarly, McMahon and Strongman (1999) stated that trust is the most important ingredient for successful long-term relationships between mining companies and their neighbouring communities, and it should be forged during consultation at the exploration stage of project development. The World Bank conference on "Mining and

the Community" held in May 1997, at Quito, Ecuador, identified three main themes of particular significance to the interaction between the mining sector and local communities. These were legal and consultative issues, indigenous people's rights and economic and social benefits and costs (see McMahon and Strongman, 1999:8). Sir Robert Wilson, the Chairman of Rio Tinto (a mining Company based in London) acknowledged the mining industry's past poor environmental and social records when he said that, "We have got to recognize realities. And the reality is that unfettered developments of the past... have led to unattended environmental and social consequences" (*BBC News,* 2002:2).

The reviewed literature revealed few documented cases of community perceptions of mining, and few studies of mining in Africa. Most of the sites selected for critical study were in North America, Latin America, and the Asian Pacific regions. Epps (1997) echoed the importance of gathering community perceptions of mining development, determining whether or not there is potential for community conflict, and identifying beforehand the projects' potential benefits and negative impacts to the community as strategies for managing relationships with resource communities. Similarly, Humphreys (2000:8) noted that, "there are relatively few well-documented case studies…" on the relationship between mining companies and their communities, and thought there is still much to be learned from these relationships. Madeley (1999) also noted that many of the studies on operations of transnational corporations in developing countries are skewed towards economics (capital flows, efficiency, etc.) at the expense of socio-economic and cultural impacts.

In the same vein, the existing body of literature on mining in Ghana is skewed towards the impacts of the government's Structural Adjustment Programme. Boateng (1997) noted that no research has been conducted on community perceptions of mining in Ghana and recommended that the mining industry and the government of Ghana commission social scientists to undertake studies of mining impacts and perceptions of resource communities. Consequently, Salami and Tsekpor (2000) undertook a socio-economic baseline study of mining communities but highlighted that, "identifying ways and means by which companies and communities can co-exist and harness the resource endowment in their catchment area in a sustainable manner [is] imperative" (Salami and

Tsekpor, 2000:59). My study attempts to fill this research gap. The study is framed within the concepts of power, trust, market and corporate responsibility ideologies, and resource alienation.

2.2.2. Power and Trust in Social Relations

The concept of power has been defined in many ways. However, all definitions seek to answer how power is distributed among different units in society, and the magnitude of power held by one party in society with respect to the other parties (Dahl, 1992). I based my study on Max Weber (1992) and Macionis and Gerber's (1999) definition of power since they embody the element of resistance, which often characterizes the relationship between mining companies and their communities. Weber defines power as the ability to achieve desired goals despite resistance (Macionis and Gerber, 1999; Weber 1992). 'Resistance' is used as a measure of relative power between two parties conflicting over an issue (Lukes, 1992; Weber 1992).

Sociologists and political scientists have advanced at least three competing models to explain and answer the question of who has more power in society. These are the *pluralist model*, the *power-elite model* and the *Marxist political-economy model* (Macionis and Gerber, 1999). The *pluralist model* argues that power may be relatively concentrated or diffused among many competing interest groups in society, and individuals' or group's share of power may be great or small (Macionis and Gerber, 1999; Dahl, 1992). Proponents contend that economic or corporate elites (including mining companies) and bureaucratic elites (including government machinery) are the most powerful institutions in society. According to this model, government and corporate elites are highly integrated, accommodating each other in order to keep the system working (Ali and Behrendt, 2001; Macionis and Gerber, 1999). The *power-elite model* also argues that power is concentrated among the rich such that the voice of the average person is hardly heard in society (Macionis and Gerber, 1999). The model, however, explains that power can successfully be resisted by the disadvantaged in society, who form themselves into political associations, civil society or other interest groups to confront the powerful units in society (Macionis and Gerber, 1999; Lukes, 1992, Weber, 1992). The model also affirms that corporations and governments are the most powerful

units in society. The *Marxist political-economy model* not only attributes the power imbalance in society to the disproportionate wealth and riches of individuals, but also to the bias rooted within the system's institutions, particularly its economic institutions (Macionis and Gerber, 1999). Proponents argue that the economic system of a society determines how the political system operates, and thus power-elites are products of capitalism.

The three models conclude that power is not evenly distributed among individuals or actors in social relations. The models also recognize that corporations and governments are the most powerful units in society. Government and corporations thus have the capacity to achieve their desired goals despite resistance, and also to influence social behaviours (Dahl, 1992). In situations where power is diffused, the party with more power does not necessarily achieve absolute power over the other. Notwithstanding power concentration in corporations and governments, the models reveal that power can successfully be resisted when the disadvantaged in a relationship or society act in concert to confront the powerful control units. Some theorists, however, believe resistance extracts a cost from the group who resists (Lukes, 1992).

As with the concept of power, social trust also has many definitions (see Govier, 1997; Barber, 1983, Luhman, 1980; Bok, 1978; Heimer, 1976). All the definitions involve 'expectations' of some kind, similar to the communities' expectations towards the mining companies for development and employment (see Chapter Four). This is because 'expectation' is the basic element that binds parties in a relationship (Govier, 1997; Barber, 1983; Bok, 1978). For instance, a trusted partner is expected to keep to his/her word, explicit promise, or verbal or written statement (Govier, 1997). A trusted partner is also expected not to manipulate parties made vulnerable by their relative ignorance (Govier, 1997; Heimer, 1976). It is also expected that a trusted party will be honest, reliable, and honour his/her fiduciary obligation and responsibility in a relationship (Govier, 1997; Barber, 1983). Finally, it is the expectation that a trusted partner's motivation in a relationship emerges from affection, care, and concern, not from disaffection, ambition and self-interest (Govier, 1997; Luhman, 1980). However, I based my study mainly on Barber's (1983) and Govier's (1997) conceptions of trust because they have certain concepts which are relevant to corporation/community interaction.

Barber (1983:165) defined trust as, "the socially learned and socially confirmed expectations that people have for each other, of organizations and institutions in which they live, and of the natural and moral social orders that set the fundamental understandings for their lives". Govier (1997:4) also noted that "trust is fundamentally an attitude, based on beliefs and feelings and implying expectations and dispositions". Barber noted that all social relations involve acting upon expectations, which are partly emotional, moral, or cognitive. Govier (1997) also noted that in giving our trust to a known person, our expectations are informed by our experience with that person and what we know from that experience. She argues that when we trust, we generally have positive expectations about what other people will do in a relationship. When we trust, our expectations are open-ended, meaning we do not have a list of all the things a partner is supposed to do in the relationship. It is expected that a trustworthy partner will do what is fitting and appropriate in the relationship as the situation changes and issues arise (Govier, 1997). Trust thus affects our interpretations of other people and our perceptions of what they do.

Barber (1983) identified three meanings of trust in social relationships. These are expectations of the persistence of the natural and the moral social order, expectations of technically competent performance, and expectations of fiduciary responsibility and obligation (Barber, 1983:8-9). The meaning of trust as fiduciary obligation and responsibility is most relevant to this study because it relates to the social and ethical dimensions of corporate responsibility to society. Barber explains fiduciary obligations and responsibility as the expectations that the wealthy and more powerful actors in a social relationship would show special care and concern for the less privileged members of the society. He noted that society in general expects corporations to exhibit fiduciary responsibility and obligations to the public rather than prioritizing their private interests.

Govier (1997) applied the concept of fiduciary responsibility and obligation to peasant societies (such as my study communities) from a *clientelistic* perspective (i.e. *patron-client relationship*). Peasant societies are communities that work the land for their own subsistence, small in nature, and relatively isolated both socially and geographically (Govier, 1997). A clientelistic relationship (which is akin to company/ community relationships in developing countries) is one where "a relatively vulnerable and low-

status member of a society establishes a special connection with someone of higher status, more wealth, and greater power" (Govier, 1997:147). She noted in such relationships the client (communities in this case), who is more vulnerable in the relationship, needs more fiduciary responsibility from the more powerful and wealthy patron (such as mining companies). Govier observed that trust in such relationships is contingent upon favours the client received from the patron in the past. If, previously, the client has received positive favours from the patron, then the client will come to trust the patron. The client, according to Govier, does no specific job for the patron for the benefit received or expected from the patron. Instead, the client accepts the patron's control in return for favours from the patron (Govier, 1997). She stated that clientelistic relationships perform the social function in societies "where formal norms regulating bureaucracy tend to be weak,... offering some protection to weaker members of society" (Govier, 1997:147). She concluded that due to their entrenched poverty and long history of mistreatment, peasant communities naturally have high distrust in others to the extent that social and co-operative development efforts are often difficult to accomplish.

It must be noted that Govier conceptualized her theory with examples from peasant societies in Latin America and Southern Italy. The theory has neither been applied to Africa nor to a relationship between corporations and society. My study applies the concept to an African context and company/community relationships.

2.2.3. Conceptualized Corporate Response to Public Trust

Corporations have often been criticized by the public as not trustworthy (Prager, 1997; Barber, 1983). The general perception is that corporations prioritize their private interest over the public's, and so lack fiduciary responsibility and obligations. Prager (1997), for instance, identified in his public confidence survey that the American public has less confidence in mining companies than any other organization because they perceive mining companies care little about public interest. Similarly, Macfarlane and Akabzaa (1999) also noted that "one of the fundamentals of long-term success for mining companies... [is] their ability to align the interest of local communities with their own" (Macfarlane and Akabzaa 1999:12). Barber (1983) identified five concepts and ideologies that companies use to respond to public critiques that the business community

lacks fiduciary responsibility. They are market ideology, professional ideology, corporate responsibility ideology, corporate social audit, and the use of corporate boards of directors. I will only talk about market and corporate responsibility ideologies because the concepts explain the dilemma between the profit maximizing objective of companies and the need for companies to be socially and ethically responsible to community welfare.

Market ideology defends the business community against public criticisms that the sector is responsible for all the social ills confronting society (Barber, 1983). This ideology affirms the centrality of profit in all business endeavours and considers all dealings with members of the public that do not directly contribute to profit as unproductive. Corporations with market ideology lend limited time to engaging with the public because they believe the public has different notions about capitalism than their own. Holders of market ideology believe that engaging those with contrary or opposing views about the market means, "not listening to them but telling them what they should think" (Barber, 1983:111). Corporations of this type thus belittle the need to accommodate differences of interests, values and perceptions.

The public expects corporations to focus attention on social and ethical issues in business activity, rather than focusing mainly on economics (Downing et al, 2002; Feeney, 2001; Macfarlane and Akabzaa, 1999; Barber, 1983). Corporate social responsibility ideology is therefore used by companies to deal with the dilemma of private versus public interest and they are broad statements of principle detailing corporate responsibility to communities (Downing et al. 2002; Barber, 1983). However, the concept has been criticized in that few companies genuinely subscribe to it (Downing et al., 2002; Feeney, 2001; Macfarlane and Akabzaa, 1999; Barber, 1983). For instance, a survey of 38 major mining companies in the world revealed that only three had committed offices or personnel working on social issues, and none of the companies employed social scientists (Warhurst, 1998; cited in Downing et al., 2002). Barber (1983) also noted that companies that genuinely subscribe to the doctrine of corporate social responsibility might invariably have one executive person in the organization who is committed to the social concern and public trust of the firm.

2.2.4. Resource Alienation

The concept of resource alienation is also relevant for the study because the surface mode of operation of mining companies in Ghana is highly disruptive and leads to land-use conflict. Alienation is to be estranged from oneself, others or the product of one's labour (Ollman, 1971). Originating from philosophical and theological discourse, the term dates back to Rousseau and Hegel (Blauner, 1964). The concept of alienation can be found in the early works of Karl Marx, and it is his use of the term that motivates much contemporary thought on the subject (Ollman, 1971). According to Marx, alienation is a specific result of capitalist social relations (Ollman, 1971). He used the logic of alienation to show the structural features of capitalism and need for class consciousness among exploited workers (communities in my case).

A.K. Aubynn (1997) applied the concept of alienation to resources extraction in mining communities in Ghana. He explained the concept of resource alienation as a process of exclusion and displacement of local people from the use of land-based resources. He argued that local communities in Ghana's mining district have lost or are in the process of losing their access to basic subsistence resources, in favour of national economic production. The argument is that the local people have yielded their main resources and their sources of livelihood (land) to mining companies for the production of gold, and in the process have suffered procedural and substantive alienation (Aubynn, A.K., 1997). Procedural alienation occurs when communities are excluded from the initial negotiation for acquiring community land for mining (Anaman, 2002; Aubynn, A.K., 1997). A.K Aubynn argued that the exclusion incapacitates local communities from commenting on the social assessment procedures or the substance of the Environmental Impact Assessment report. The exclusion also leads to loss of the value of local knowledge in identifying crucial environmental resources, such as endangered animals and plants (Aubynn, A.K. 1997). Substantive alienation also involves forcible surrender of local resources for developmental purposes (Aubynn, A.K., 1997). According to A.K Aubynn, once a concession licence has been granted to a mining company, the farmer or traditional landowner loses his or her right to use the land. Substantive alienation manifests itself through its effect on access to local lands, employment (subsistence livelihoods), social stability and health (Aubynn, A.K., 1997).

Some researchers in Ghana have also written about the procedural and substantive exclusion of mining communities in the process of resource development (see Antwi, 2002; Anaman, 2002; Suorineni and Suglo, 2000; Akabzaa and Darimani, 2001; Suglo, 1999). These authors stated that the procedure for land acquisition for mining in Ghana clearly ignores the communities under whose jurisdictions the concessions reside. The process of exclusion makes communities see companies as 'outsiders,' thus contributing to poor community acceptance of companies. The authors noted that government exclusion of communities in land acquisition procedure means companies have to make special arrangements with community chiefs at project sites to ensure co-operation during mineral development and operational phases. They concluded that resource alienation in Ghana has substantively resulted in loss of community land, unemployment, and conflict with mining companies.

Similarly, Whiteman and Mamen (2001) noted that the Yellowknife Dene First Nations in Canada and The Ngabe-Bugle indigenous group in Panama are powerless to influence key mining decisions that affect their lands and livelihoods. The authors attributed this situation to the "power inequities and the lack of institutional will to share decision-making power with local communities" (Whiteman and Mamen, 2001:1).

2.3. Mining in Ghana

Ghana is well endowed with substantial mineral resources, primarily gold, diamonds, manganese and bauxite. Gold is by far the most predominant mineral produced in Ghana, accounting for about 37.9% and 95% of the total merchandise and mineral export respectively (Aryee, 2001). It also accounts for about 80% of all mineral revenue (Adadey, 1997). Bauxite deposits are mined in the Western Region; diamonds in the Eastern and Western Regions; and manganese in the Western Region. My study focused mainly on gold mining operations because of the relatively high foreign direct investment in this sub-sector.

Ghana, known as Gold Coast during colonial times, has a long history of mining, and gold has been mined and exported for over a thousand years (Sweeting and Clark, 2000; Dumett, 1998; Annin, 1992; Huqq, 1989; Government of Ghana, 1980). Long before the arrival of Europeans in Ghana in 1471, indigenous people were extracting gold

from alluvial materials deposited on the banks and beds of rivers. The gold sector was vibrant and accounted for 35% of total world gold output between 1493 and 1600 (Sweeting and Clark, 2000). Between 1471 and 1880, an estimated 14.4 million ounces of gold were produced in Ghana (Sweeting and Clark, 2000; Dumett, 1998).

Modern mechanized mining of precious metals from both alluvial and hard-rock dates from about 1880, when this type of mining began in the Tarkwa area (Dumett, 1998; Annin, 1992; Government of Ghana, 1980). Frenchman Pierre Bonnat first reported the possibility of mining gold in the Tarkwa area in 1887, and a company was formed in Paris for this purpose (Dumett, 1998; Annin, 1992; Huqq, 1989). A gold rush subsequently occurred in the Tarkwa area and many gold mining companies began operations there. In 1898, modern mining was extended to Obuase in the Ashanti Region, where the gold deposits were found to be even richer than the Tarkwa deposits (Dumett, 1998; Annin, 1992; Government of Ghana, 1980). This dynamic initial development of the gold mining industry was vital to the Ghanaian economy in that it introduced modern capital-intensive mining techniques to Ghana. It also instilled in the labour force the habit of working regular hours for regular pay and the introduced modern industrial practices. The gold mining industry thus laid the basis for subsequent industrialization in Ghana.

There are two broad categories of mines in Ghana: large-scale mines and small-scale mines. Big companies employing hundreds or thousands of people and using heavy equipment and sophisticated technology operate large-scale mines. Virtually all major large-scale mining companies in Ghana (except Ashanti Goldfields Ltd, Obuasi mine) operate on the surface, and are 90% foreign owned, with mother companies domiciling abroad, notably in USA, Australia, Ireland, South Africa, Canada, Britain and Norway (Aryee, 2001; Akabzaa and Darimani, 2001; Aubynn A.K., 1997).

Small scale mining is often considered as that undertaken by individuals or co-operatives with weak financial base and little or no mining expertise. The operations are artisanal in nature and are characterized by little or no mechanization which makes them labour-intensive (Suglo, 1999). They are primarily indigenous youth who provide employment for themselves. Within the small-scale mining sector, there is illicit mining operation, locally known as g*alamsey,* which dominates the whole mining sector in terms of local employment (Aryee, 2001; Suglo, 1999; Aubynn A.K., 1997; Lewis, 1997). For

instance while the large-scale mines in Ghana together employ an average of over 20,000 people, about 60,000 people are estimated to take part in the illicit *galamsey* activity (Aryee, 2001; Suglo, 1999; Lewis, 1997). *Galamsey* is an adulterated english word used to indicate the scattered nature of gold resources that can be gathered discretely and thoroughly, and sold, in defiance of state security forces (Aubynn, A.K., 1997).

The contribution of large-scale mining to the nation's economy cannot be overemphasized. The sector is the largest foreign exchange earner, contributing about 45% of the total foreign exchange of the country (Aryee, 2001; Sweeting and Clark, 2000; Adadey, 1997). The mining sector also accounts for an average of 7% to 9% of total government revenue (Ghana Minerals Commission, 2001; Aryee, 2001). Finally, mining communities are centers of brisk business, and large mines injected over US$300 million into the national economy as salaries from 1996 to 1998 (Aryee, 2001). Such infusions from mining activities have positive multiplier effects on the national economy. However, salary infusion has relatively little on the economies of the communities due to limited employment of local labour (Akabzaa and Darimani, 2001) because they lacked sufficient education and skill to work in the mines. Meanwhile, most mineworkers do not invest their incomes in the local communities to create secondary jobs (Aubynn, E.A, 1998a).

2.3.1. Developments in Ghana's Mining Industry.

Since independence in 1957, Ghana's mining industry has experienced major policy shifts aimed at revamping the sector as it became the leading foreign exchange earner for the Ghanaian economy. The policy shifts started with nationalization of private-led investment soon after independence. The wave of neo-liberal policy actions sweeping across the Third-World countries in the 1970s and 1980s, coupled with production constraints in the mining sector, necessitated a redirection of mining policy to attract private capital and to restructure the industry in the 1980s. This section looks at these changes and its impacts on resource communities.

2.3.1.1. Pre-Economic Reform Mining in Ghana

Before independence, foreign companies wholly controlled mining investment in Ghana (Annin, 1992; Dumett, 1998; Huqq, 1989; Government of Ghana, 1980).

Following independence, this changed to predominantly state-owned. As a result, the Government of Ghana established the State Gold Mining Corporation (SGMC) to takeover the activities of five gold mines (Bibiani, Tarkwa, Prestea, Konongo and Dunkwa mines) and a manganese mine controlled by foreign companies (Aryee, 2001; Akabzaa and Darimani, 2001; Sweeting and Clark, 2000; Dumett, 1998; Annin, 1992; Huqq, 1989). The prime objective of government's take-over was to safeguard employment for its nationals and ensure reliable access to foreign currency, mostly generated by the mining companies (Akabzaa and Darimani, 2001; Aryee, 2001; Government of Ghana, 1980).

After the nationalization exercise, particularly the period between 1960 and 1985, the mining sector experienced a number of production, technical and financial constraints (Aryee, 2001; Akabzaa and Darimani, 2001; Sweeting and Clark, 2000; Dumett, 1998). Consequently, sector output declined and the industry contributed relatively less to gross national earnings. These constraints made the state-owned companies globally uncompetitive. Some policy changes aimed at attracting foreign private capital into the industry during this problem period did not succeed because they were characterized by high taxes and other duties along with significant state control of the industry (Akabzaah and Darimani, 2001; Dumett, 1998). Thus gold output, which peaked at 915,317 ounces in 1960, fell to 287,124 ounces in 1986 (Aryee, 2001; Akabzaa and Darimani, 2001; Sweeting and Clark, 2000; Adadey, 1997; Aubynn A.K., 1997). Other minerals suffered a similar decline, which was considered one of the main reasons for the shortage of foreign exchange during that period (Aryee, 2001; Akabzaah and Darimani, 2001; Sweeting and Clark, 2000; Dumett, 1998; Aubynn, A.K., 1997).

2.3.1.2. Ghana's Adoption of SAP: The Rationale

Structural Adjustment Programme (SAP) and Economic Reform Programme (ERP) are often used interchangeably in Ghana, even though ERP is a subset of the SAP. Since 1983, Ghana has been undergoing World Bank/International Monetary Fund sponsored SAP. SAP is a constellation of macro-economic policy actions designed to bring a country's domestic and external imbalances to equilibrium. This has meant a shift from an interventionist stance, which in the past, allowed the state to micro-manage the

economy, towards a neo-liberal position which allows the market to allocate resources and the private sector a dominant role in the management of the economy (Portes, 2002; Aubynn A.K., 1997; Brohman, 1996; Munasinghe, 1996).

Before Ghana began adopting and implementing the SAP in 1983, persistent budget deficit, expansionary monetary and fiscal policies, and excessive borrowing from the banking system plagued the economy (Konadu-Agyemang, 2000; Government of Ghana, 1984). Pressures from these problems increased domestic inflation from 50.1% in 1980 to 123% in 1983 (Aryee, 2001; Konadu-Agyemang, 2000; Government of Ghana, 1984). Consequently, the *Cedi* (Ghana's currency) became over-valued, creating disincentive for export. As foreign earnings declined, critical foreign exchange scarcity and balance of payment crises became very serious constraints on the economy. Shrinking output, acute shortage of consumer goods, dislocation of transport and communications, poor health and educational infrastructure also became common features of the economy (Government of Ghana 1984).

These infirmities culminated in total economic decline as the average annual Gross Domestic Product (GDP) growth rate between 1975 and 1983 was a negative three percent, while per capita GDP growth rate was a negative 7 percent (Aryee, 2001; Konadu-Agyemang, 2000; Aubynn A.K., 1997; Government of Ghana, 1984). Gold production had also fallen from 900,000 ounces produced from 30 mines in 1960 to 300,000 ounces produced by five mines in 1983 (Aryee, 2001; Sweeting and Clark, 2000). Ghanaian society became impoverished as real income fell, drastically skewing income distribution, and increasing unemployment. It was against this background of economic instability that the Government of Ghana adopted the World Bank SAP in 1983 to arrest and reverse the serious deterioration in economic performance and to stabilize the economy.

The crux of SAP is not so much about policy content but the myriad of conditions required to receiving funding from international lending sources such as the World Bank. Prerequisites for funding included:

- Devaluing the nation's currency,
- Adopting a flexible and realistic exchange rate;
- Reducing inflation;

- Down-sizing public services;
- Cutting government spending on education, health and welfare;
- Improving the financial position of the public sector;
- Removing trade barriers;
- Privatizing public enterprises; and
- Promoting export and other policies geared towards enhancing economic growth (Aryee, 2001; Konadu-Agyemang, 2000; Portes, 2000; Sweeting and Clark, 2000; Aubynn A.K., 1997; Brohman, 1996; Government of Ghana, 1984).

Although Ghana was an early testing ground for neo-liberalism in Africa, neo-liberalism and its SAPs became accepted policy actions by the Third-World countries. The SAPs became a condition through which Third-World countries could access financial assistance from the IMF/World Bank in the wake of the 1970s' international debt crises. The debt crises plagued the world's largest banks and financial institutions that provided loans to Third World countries (Konadu-Agyemang, 2000; Portes, 2000; Brohman, 1996). Thus IMF/World Bank loans were made conditional on submission to officially supervised SAPs, which became decisive factors for Third-World countries in restoring international creditworthiness (Portes, 2000; Brohman, 1996).

The implementation of the SAPs in Ghana has led to some successes. For instance, GDP witnessed a positive growth rate from its negative level during the past decade. Between 1984 and 1991, GDP grew an average of five to six percent. Inflation drastically decreased from an average of 123% in the 1980s to 32% in 1991. There has also been an increase in donor confidence and attraction of foreign investment, repairs in structural imbalances and increased industrial productive capacity, which was at its lowest ebb in a decade before the implementation of SAP (Aryee, 2001; Akabzaa and Darimani, 2001; Sweeting and Clark, 2000; Konadu-Agyemang, 2000; Aubynn A.K., 1997; Government of Ghana, 1984).

However, there are also some failures of the SAPs. For instance, precipitous and indiscriminate trade liberalization has devastated local industries that provide the bulk of national employment (Konadu-Agyemang, 2000). Structural and sectoral policy reforms in agriculture and mining have undermined the viability of small farms and weakened food security (Akabzaa and Darimani, 2001). In addition, privatization of public utilities,

the application of user fees to health care and education, and cuts made in social spending in national budgets under the guise of 'rationalization', have reduced the poor's access to affordable services (Akabzaa and Darimani, 2001; Konadu-Agyemang, 2000).

2.3.1.3. Post-Economic Reform Mining

Because of the important role the mining industry plays in the economic development of the country, the sector was one of the areas that received the maximum attention under the SAP. The short-term policy objective was to halt the production decline by assisting existing mines to obtain international funding for rehabilitating equipment and machinery, upgrading mine infrastructure and improving management practices in the state-owned enterprises (Akabzaah and Darimani; 2001; Aryee, 2001; Sweeting and Clark, 2000; Government of Ghana, 1984).

The long-term SAP objective for the mining sector was to institute economic and legal measures to attract investment for exploration and expansion (Akabzaah and Darimani; 2001; Aryee, 2001; Sweeting and Clark, 2000; Government of Ghana, 1984). To attract new investment into the mining industry, a new mineral and mining law (PNDCL 153) was promulgated in 1986, where regulatory institutions responsible for development in the sector were strengthened or set up. One of these key institutions is the Ghana Minerals Commission, which was to provide as close to a one-stop investment center as possible (Interview with the Ghana Minerals Commission, July 2001). The law provided for the streamlining of the mineral rights licensing procedures, and a favourable fiscal and financial regime. The law gives the mining companies:

- Generous tax allowance—a corporate tax rate of 45% was slashed to 35% together with additional profit tax provision;
- Accelerated depreciation—75% write-off on capital expenditure for the first year and 50% in the subsequent years;
- Exemptions from customs—equipment, machinery and accessories imported for mining purposes are exempted from the payment of customs and import duties;
- Capitalization of reconnaissance and prospecting operations after locating commercial finds;
- Royalty rebate— royalty was slashed to a minimum of 3% on gross sales;

- investment flexibilities—abolition of foreign ownership restrictions, allowed repatriation of profits and the holding of up to 80% of foreign exchange earnings offshore. Companies are also permitted to convert assets into foreign currency

(Ghana Minerals Commission, 2001; Aryee, 2001; Akabzaa and Darimani, 2001; Sweeting and Clark; 2000; Aubynn A.K., 1997).

As a result of these policy measures the mining industry received considerable investment and witnessed a phenomenal growth (Table 2.1)

Table 2.1. Pre- and Post-Economic Reform Mineral Export Earnings.

Minerals	1983 (US$M)	1998 (US$M)	%Change (US$M)
Gold	114.1	679.4	+495.4
Diamond	2.8	21.8	+678.6
Manganese	3.1	11.0	+253.6.
Bauxite	1.7	7.2	+321.8
Total	121.7	719.3	+491.1

(Source: Computed from Aryee, 2001; and Addo, 1999)

To date, the mining sector alone has attracted 56% of the total foreign direct investment (FDI) into the country (Aryee, 2001). For instance when the SAP was first introduced in 1983, Ghana had only five operating mines. In the last decade, 13 major new surface mines have been opened in the country and more than 200 exploration leases have been allocated (Sweeting and Clark, 2000). Today, 30% of the total land surface of the country, and 70% of the total land surface of Wassa West District (my study area) have been leased out to the mining industry, mostly as exploration concessions (Aidoo, 2002; Sweeting and Clark, 2000). However, the industry claims only 13% of the total land surface of the country has been allocated for reconnaissance, prospecting and active mining (*Ghana News Agency*, 2003a). The post-reform performance of the industry, particularly the gold sub-sector, has elevated Ghana to the second largest producer of gold in Africa and among the top 10 major gold producing countries in the World (Sweeting and Clark, 2000).

In conclusion, Ghana has witnessed a fundamental change in political economy since the 1980s. This change, from a state-centered economy to free market neo-liberal regime, has arguably led to some improvements in the national economy, including consistent 5% annual GDP average growth rate and increase in foreign direct investment

(estimated at about US$4.0 billion in 1998 for the mining sector) and mining output (Ghana Minerals Commission, 2001). However, the growth in investment has also had a negative socio-environmental impact on resource communities due to surface operations.

2.4. Mining Community Land: The Current Trend

The Government of Ghana, like most governments of mineralized economies, has pre-emptive rights over all minerals in its territorial lands, irrespective of administrative region. According to the Provisional National Defence Council (PNDC) L153, Section 70 (3), communities only have surface rights to the land.

Thus application for an exploration or mining licence is considered by a committee of the central government agencies, represented by the Minister of Mines, the Minerals Commission, the Mines Department, the Environmental Protection Agency, and the Lands and Forestry Commission (Akabzaa and Darimani, 2001; Suorineni and Suglo, 2000; Al-Hasan et al., 1997; Boateng, 1997). Communities are not directly involved in the round table discussion for leasing community land (Antwi, 2002; Anaman, 2002; Akabzaa and Darimani, 2001; Suorineni and Suglo, 2000; Aubynn E.A., 1998a; Aubynn A.K., 1997). As a result, communities are often not informed of the proposals or intentions of land acquisitions, belatedly and sketchily informed of the proposals through public hearings, or completely left out of the initial negotiations (Antwi, 2002; Anaman, 2002; Akabzaa and Darimani, 2001; Suorineni and Suglo, 2000; Aubynn E.A., 1998a; Aubynn A.K., 1997; Conduah, 1996). As a corollary to this, the chiefs and residents in mining communities are not familiar with procedures related to land acquisitions for mining (Suorineni and Suglo, 2000; Conduah, 1996).

Once the mining company makes economic finds, negotiation for mining rights rests almost exclusively with the company and the central government agencies (Anaman, 2002; Akabzaa and Darimani, 2001; Suorineni and Suglo, 2000; Aubynn A.K., 1997; Boateng, 1997). Even though mining regulations allow affected farm owners to be compensated, the system of compensation is seen as unfair and subject to considerable delays (Akabzaa and Darimani, 2001; Aubynn, E.A., 1999; Aubynn, E.A, 1998a; Boateng, 1997). For instance, a farmer who loses unplanted land to a mining project gets no financial compensation at all (Akabzaa and Darimani, 2001; Aubynn, E.A., 1999; Aubynn, E.A, 1998a; Boateng, 1997). This compensation system contributes to

speculative farming on community land acquired by companies for mining purposes in order to receive compensation (Aubynn, E.A., 1999; Aubynn, E.A, 1998a; Aubynn, E.A., 1998b).

In Ghana, mining companies pay royalty to the central government for the extraction of minerals from territorial lands. The royalty constitutes 3% of the gross sales of companies, and it is paid quarterly to the Internal Revenue Service (the government's revenue collection agency). For instance, the industry paid ¢400.0 billion (U$47.2 million) royalties to the central government between 1997 and 2002 (*Ghana News Agency,* 2003b). Part of the royalties are meant for mining community development, and the distribution formula is as follows:

- 80% to the central government's consolidated fund;
- 10% to the Ghana Minerals Commission, Geological Department, Survey Department, Mines Department, and mining-related educational institutions in the country;
- 6% to the District Administration that hosts mining companies;
- 2% to the Traditional Council (a body of traditional rulers in the District);
- 2% to all the local chiefs of communities whose lands fall within the concession, and/or who are within the spheres of influence of the mines (Interview, Ghana Minerals Commission, July 2001).

The formula shows little of the royalties paid by the companies actually go to the host communities, as the state appropriates the bulk of it for development. Communities' share of royalties are not only insignificant to carry out any meaningful development, but also misapplied by local community leaders (*Ghana News Agency*, 2003a; Kampfner, 2001; Akabzaa and Darimani, 2001; Interview with Ghana Minerals Commission, 2001). Meanwhile, resource development promises made to communities by companies at the teething stage of project development are not documented into a contractual agreement (Akabzaa and Darimani, 2001; Aubynn, E.A., 1999; Aubynn, E.A, 1998a; Aubynn, E.A., 1998b), and hence, are not legally enforceable. Informal networks are used for problem solving so formal contractual agreements between companies and communities are rare. Formal agreements are made at the governmental level. Thus most mining communities

in Ghana lack visible development projects and, hence, a perceived acceptable standard of living (Akabzaa and Darimani, 2001; Salami and Tsekpor, 2000; Aubynn A.K., 1997; Boateng, 1997). For instance, a prominent chief of a proposed mining community in Ghana stated he will not allow mining on his land because the history of mining operations in Ghana has shown that mining activities had done little or nothing to eradicate poverty from areas where such operations have been undertaken (*Ghana News Agency*, 2003c).

2.5. Rationale for Study Site

Within Ghana, I selected Wassa West District as the study site for four reasons. First, the District contains the largest surface mining concentration in the country (Aidoo, 2002; Salami and Tsekpor, 2000; Aubynn, A.K. 1997; Boateng, 1997; WWDA, 1996). This situation has not only created land-use conflict in the area, but also has led to public debate about mining's environmental impact.

Second, an estimated 70% of the total unoccupied land surface of the District has been leased out as concessions to mining companies, even though the industry has refuted this assertion (Aidoo, 2001). Only 30% of the land remains for agricultural purposes, yet agriculture employs over half of the District's active labour force (WWDA, 1996). This situation has the potential of creating mass unemployment and food shortages in the District.

Third, the District is one of the most deprived in Ghana in spite of its wealth (Kampfner, 2001; Salami and Tsekpor, 2000; Aubynn A.K., 1997; Songsore et al., 1994). Miniru (2002:1) noted that, "the Western Region, produces the bulk of the country's cocoa, timber and minerals yet it is the least developed". As a result, there is a perception that the mines generate great wealth, yet little is distributed within mining communities in Ghana (Akabzaa and Darimani, 2001; Kampfner, 2001; *Washington Post*, 1996).

Finally, conflicts and demonstrations against mining companies due to perceived marginalization of community development, environmental degradation and excessive surface operation are not uncommon in the District (*General News*, 2001; Aubynn E.A., 1998a; Boateng, 1997; *People's Daily Graphic*, 1996). These have the potential to retard investment into the District, particularly in the wake of intense competition for

international investment capital, since a prime consideration for investors is security for themselves and their investment (Muchapera, 2002; Jonah, 2001). A recent study indicated that out of US$788.3 million private capital invested in Africa in 2000, Ghana had nothing, while countries like Tanzania had $389M, South Africa $300M, Mali $159.3M and Niger $23M (Antwi, 2002). Company/community conflict may have played a part in reducing investors' interest and confidence in Ghana.

2.6. Description of Study Site

The purpose of my study is to identify the socio-economic and environmental impacts of mining as perceived by mining communities in the Wassa West District of Western Ghana. This section will briefly profile the study sites (Country, District and selected communities) to contextualize the study. The nature and site characteristics of resource communities influence the impact of an extractive project on community life (Vanclay, 2002; Leistritz and Root, 1999; Leistritz and Murdock, 1981), and hence a community's resilience.

Ghana is located in Western Africa. Before March 1957, when the country gained its independence from British rule, Ghana was known as the Gold Coast because of rich gold deposits along major river valleys. The climate is mainly tropical equatorial. Ghana has a total land size of 238,537 km^2, which is approximately one-third of Alberta's 661,190 km^2. Ghana's population in 2000 was 18.8 million (Ghana Statistical Service, 2002), six times larger than Alberta's 3.0 million population. Ghana is a patriarchal society. English is the official language used in all institutions but the country's population is composed of approximately 35 major ethno-linguistic groups (Adu, 2002). Administratively, the country is divided into 10 Regions. Cocoa, timber and mineral production (gold, diamonds, manganese and bauxite) constitute the backbone of the Nation's economy (see Figure 2.1).

Figure 2.1. Map of Ghana Showing Study Area

My study was conducted in the Wassa West District (WWD) of the Western Region because it is the hub of surface mining operations in Ghana

Currently, there are eight gold mining companies and a manganese mine at WWD, all operating on the surface. Different multinational corporations own each of these mines. The District's total land surface constitutes about 3.9% of the total land area of the country, and has 364 towns and villages and a population of 260,000 (Ghana Statistical Service, 2000). The District has a density of 98.7 persons per km^2 (WWDA, 1996). The population is heavily concentrated in the mining areas. The Wassa people constitute the indigenous ethnic group in the District but the ethnic mix is highly varied due to mining activities. The District accounts for 39% of Ghana's cocoa production; 30% of its gold; 100% of its manganese; and 50% of its commercial timber (Aubynn, A.K, 1997; Songsore et al., 1994). These natural resources support varied economic activities in the area.

Outside Tarkwa township, and in the rural settlements, subsistence and commercial farming have been the main economic activity. *Galamsey* activities provide another important source of livelihood for the people in the district. However, the establishment of large-scale mining companies in the district has displaced or restricted many small-scale mining (*galamsey)* operators' access to the gold fields (Asad, 2003a). The operators are thus forced to work either on marginal lands, open up new (previously forest or agricultural) lands, pilfer ores from companies' pits, or seek other work (Asad, 2003a; Lewis, 1997).

I selected three communities in the WWD for my study (see Chapter Three for the rationale), referred to as Community A, Community B and Community C[2]. With the exception of historical background, the three communities generally have similar physical, social, and economic characteristics.

Historically, Community A has been in existence for more than 300 years, whereas Communities B and C have existed for over 200 and 60 years respectively (Interview with Community Opinion Leaders, May 2001).

The physical and built characteristics of the three communities are similar to the whole District. The physical landscape of the settlements is generally undulating and is drained by rivers and streams which, before the mines, served as sources of drinking

[2] I have used pseudonyms for the study communities and the mining companies to mask their identity to promote anonymity and confidentiality of information.

water. After the mines' establishment, Company A had provided piped-water for Community A, while Company B provided Community B with boreholes with pumps. Company C also provided Community C with boreholes with pumps. The communities also have similar built environments. Before the mines, the settlements were mainly traditional and organic in nature. After the mines' establishment, the mining companies resettled Communities A and C into relatively planned townships with better houses.

The main pre-mining economic activities in the three communities were agriculture, petty trading, small-scale mining, charcoal burning and local gin distilling. The people engage mainly in arable farming but also undertake non-commercialized animal husbandry. Their pre-mining income levels were generally low, and this manifested in the use of low cost building materials. The pre-mining cost of living was generally low because of the subsistence nature of their economies. It was estimated that a family of five could live on ¢5,000 Ghanaian cedis per day (less than CAD$1.00 today) which, according to residents, increased by about 600% after the mining companies began operation (*see Interview Guide in Appendix A.1*).

The pre-mining infrastructure in the three communities was generally poor. Only Community A had a gravel road to Tarkwa. Both Communities B and C accessed Tarkwa by train and on foot respectively. All the communities lacked piped-water and boreholes, electricity, a clinic, a modern toilet facility (they used pit latrines), a public library, a community center, and a modern market facility. After the mines, Companies B and C have provided their communities with access roads to Tarkwa and other neighbouring villages. The gravel road at Community A had also been expanded and regularly maintained by Company A. Both Communities A and C enjoyed electricity provided by the Companies. Community B did not have electricity but had 8 street lights supplied from Company B's generating plant. Company B allowed the community to patronize its health clinic while Company C provided a clinic for its community as part of the resettlement package. Community A had no clinic nor was allowed to patronize the company clinic facility. Each of the three communities had been provided with modern toilet and market facilities.

The communities also have similar social characteristics. The pre- and post-mining population of the three communities are shown in Table 2.2.

Table 2.2. Pre- and Post-Mining Community Population

	Pre-Mining			Post-Mining		
Community	**Total**	**Male %**	**Female %**	**Total**	**Male %**	**Female %**
A	1,500	53	47	6,000	60	40
B	500	40	60	3,000	60	40
C	1,000	40	60	3,000	46.67	53.33
Total	**3,000**	**44.33**	**55.67**	**12,000**	**55.56**	**44.44**

(Source: Computed from Interview data, May 2001)

The female dominance in the pre-mining population was due to agrarian activity because men tended to marry more than one woman to provide hand labour for farming activity. The relative increase in male population was due to the influx of male migrants to the communities in search of mining jobs. While Community C is a migrant settlement, Communities A and B are indigenous settlements but they are ethnically diverse. The literacy level in the three communities was generally very low; most of the literates had basic education levels. The general pre-mining school enrollments in the three communities were very low because most of the parents preferred their children to engage in farm activity rather than attend school. After the mines, school enrollments increased. Crime rate before the mines was generally low in all the three but rose after the mines.

The three communities also have similar politico-cultural structures and civil authority. The traditional head of the communities is the chief (*Ohene*), who is the occupant of the royal stool and custodian of the lands on behalf of the community. His responsibilities include ensuring community development; arbitrating disputes among community members; controlling communal and stool lands; and ensuring that traditional laws, customs, norms and cultural heritage of the communities are observed and preserved (Interview with opinion leaders, June 2001). He ensures economic, political and religious unity in the community (Busiah, 1968). The chiefs in Communities B and C did not occupy an important position in the traditional set up because they were subservient to high-level traditional leaders in their areas of jurisdiction. The chief is assisted in his traditional functions by heads of lineages or clans (*Abusua)* who act as community elders, chief councilors, and arbitration panels in the traditional court set up at the chief's palace. Taboo infractions are resolved at traditional courts. There is also the queen mother (*Ohemaa),* regarded as female head and the main authority on kingship matters of the royal clan (Aubynn E.A, 1998a, Assimeng, 1976). She is by far the most

powerful female figure in each of the communities. The *Ohemaa* is seen to safeguard morality among the female population in the communities and is usually consulted on all matrimonial affairs within the royal clan (Interview with opinion leaders, June 2001). The chieftaincy institution is a source of pride and rich cultural heritage of the people, particularly before mining operations began.

In addition to traditional political structures, there are also democratic institutions. Each community elects a representative for the District Legislature. S/he is officially known as Assemblywoman/man and liaises between the community and the district government administration. In addition to the district representative, there are also 11 elected representatives who handle day-to-day community administration, particularly development. The committee is officially known as the Town Development Committee (TDC) or Unit Committee. Thus the assemblywoman/man, together with the TDC, assists the traditional leaders in managing each community. Unlike the assemblywoman/man and the TDC, the chief and the counselors in the traditional court are not elected. The chief is successively selected from the royal clan while the chief appoints the community councilors. Even though the chieftaincy position is not an elected one, the community has a right to overthrow (distool) the chief if they find him incompetent. Under this circumstance, the royal family has to select and install a new person from the royal clan. This scenario happened at Community B where the community thought the chief, among other reasons, was not competent enough to convince the mining company to develop the community (Interview with community residents, May 2001).

In conclusion, Ghana is endowed with mineral resources, the production of which declined soon after independence. The Government of Ghana reversed the dwindling mineral output and resuscitated the ailing national economy through the adoption and implementation of IMF/World Bank sponsored SAP. The implementation of the SAP successfully increased mineral production and foreign exchange but has also brought an entirely new set of problems to the resource communities who are tied to the land in remote areas of Ghana. The literature reviewed indicates that power and trust are important concepts that shape company/community relationships. The selected communities for this study have similar physical social and environmental characteristics by virtue of their location in the same geographic region – WWD.

Chapter Three

Methodology

This chapter describes and discusses the methods employed in collecting and analyzing the data. The chapter begins with a brief overview of theoretical underpinnings of the methods used. This is followed by data collection procedures and rationale for selected methods and study participants. The chapter also discusses procedures used to analyze the data, and explains how the study achieved rigorous results. The study limitations conclude the chapter.

3.1. Theoretical and Methodological Approach

The research methods I have used for this study are grounded within the social constructivist paradigm and its ontological, epistemological and methodological assumptions about the nature and form of the social world (Baxter, 2000; Guba and Lincoln, 1994), and about how knowledge in it can be created. Other competing paradigms that have guided socio-environmental research include positivism, post-positivism, and critical theory. (Mann, 2001, Uddo Kelle; 2001; Guba and Lincoln, 1994, Schwandt, 1994; Cloke et al., 1991). Constructivism is the most appropriate approach for answering my research questions by enabling me to better understand mining company/community relationships more subjectively than positivism and other conventional paradigms allow. Constructivists believe that researchers cannot and should not be completely disassociated from the observed phenomena in the activity of inquiring into the social world (Baxter and Eyles, 1997; Guba and Lincoln, 1994; Schwandt, 1994). I use constructivism because in the construction of participants' lived experiences, I cannot objectively de-couple my values, orientation, and human complexity from the information participants provide me (*see Appendix D for the researcher's background).* Additionally, many researchers have argued that the choice of research methods should be determined by the appropriateness of the topic under investigation (Reid and Gough, 2000; Silverman, 2000; Bradshaw and Stratford, 2000; Strauss and Corbin, 1998). Constructivism is thus appropriate for my study because I share the belief that the reality of mining company/community relationships is a projection of human consciousness, and so it is socially constructed (Schwandt, 1994). Constructivists believe that objective

knowledge and truth is a result of perceptions and thus knowledge and truth are constructed, not discovered outside of the human mind (Baxter and Eyles, 1997; Guba and Lincoln, 1994; Schwandt, 1994). The choice of constructivism therefore calls for the use of a qualitative approach to the study of mining company/community relations in Ghana's Wassa West District (WWD). The study therefore employed primarily[1] qualitative approaches throughout its analyses and interpretations.

Despite the appropriateness of constructivism and its qualitative approach, the study could have employed an integrative approach (combination of quantitative and qualitative approaches) since social impact of an activity (such as mining) has both subjective and qualitative as well as an objective and quantitative measure (Vanclay, 2002; Macfarlane and Akabzaa, 1999; Boateng, 1997, Burdge, 1995). Thus the use of integrative methodological approach (triangulation) could enhance the assessment of company/community relations and hence, the rigour of the results (Vanclay, 2002; Mann, 2001; Udo Kelle, 2001; Macfarlane and Akabzaa, 1999). However, I chose a qualitative approach because affected communities, as the subjects of change, are in the best position to contribute to an understanding of the ramifications of project development on their lives (Vanclay, 2002; Macfarlane and Akabzaa, 1999; Burdge, 1995). Local people are therefore 'experts' of their own surroundings and thus have much insight into the effect of mining projects on local livelihood, values and aspirations. It is also recommended that research about public opinion should employ in-depth qualitative interviews in order to find out influential factors that are conscious for the respondents but not for the researcher (Mann, 2001; Uddo Kelle, 2001).

Five main factors underscore the need to employ qualitative methods as my primary investigative techniques. First, qualitative research can uncover and express the complex details of phenomena or events that are difficult to convey with quantitative methods (Mann, 2001; Strauss and Corbin, 1998). The methods can therefore be used to gain insight into the partially known, and also to uncover and understand what lies behind

[1] I used the word "primarily" to acknowledge the fact that some quantitative methods, which are offshoots of positivism, were used to analyze numeric data in the study. This implies I complemented a qualitative approach with quantitative methods, mainly descriptive statistics, to summarize and interpret numeric data. Some researchers have argued that complementing the two methods usually yields the best results (Udo Kelle, 2001; Baptiste, 2001; Fielding and Shreier, 2001; Kleining & Witt, 2001; Kuiken & Miall, 2001; 2001; Lindsay, 1997; Hara, 1995; Miles and Huberman, 1994).

any phenomena about which little is yet known (Strauss and Corbin, 1998). The use of these methods thus enables me to understand what lies behind the adversarial relationships between mining companies and their neighbouring communities. Second, the goal of my research is to understand the life experiences of people in mining communities. The goal of qualitative methods is also to understand life experiences and to reflect and interpret the understandings and shared meanings of people's everyday social world (Limb and Dwyer, 2001 Gubrium and Holstein, 2000; Patton, 1990). Third, qualitative methods emphasize multiple meanings and interpretations rather than seek to impose dominant or correct interpretations (Baptiste, 2001; Winchester, 2000; Bradshaw and Stratford, 2000). They are therefore more flexible than conventional methods of social inquiry. Fourth, through interviews, the methods permit inter-subjective exchanges between the researcher and the participants (Limb and Dwyer, 2001; Gubrium and Holstein, 2000). The methods also allow the descriptions of the social settings in which participants create their live experiences (Gubrium and Holstein, 2000). These two qualities of qualitative methods permit in-depth understanding and construction of the problem. Finally, I used qualitative methods because most leading researchers in community research as well as in social impact assessment of project development have been using the methods in their research (see Vanclay, 2002; Veiga et al., 2001; Salami and Tsekpor, 2000; McAllister and Milioli, 2000; Leistritz and Root, 1999; Sanchez, 1998; Burdge, 1995).

Qualitative research, it is argued, concerns an in-depth explanation of human settings and human lived experiences within a variety of conceptual frameworks (Baptiste, 2001; Winchester, 2000; Miles and Huberman, 1994; Patton, 1990). Qualitative research is a means to gain understanding of the nature of the setting. This includes how participants see themselves in that setting, the nature of their lives within the setting, what the world looks like in that particular setting, and the analysis to help convey the meaning of the setting faithfully to others who are interested in the setting (Smith, 2000; Patton, 1990). The methods presume that the behaviour and experiences of individuals may be explained not only by their personal characteristics but also by their position in their social setting or structure. 'Context' and 'processes' in qualitative

research are therefore vital in the construction and understanding of individual life experiences, something conventional research techniques fail to recognize.

Although qualitative research involves varying conceptual frameworks, I chose a hermeneutic approach to guide my interpretation and to make sense of my data set. A hermeneutic concept argues that the human-environment interaction is understood by focusing on the way in which humans experience and interpret their surroundings (Kleining and Witt, 2001; Kvale, 1996; Cloke, 1991). The hermeneutic concept was appropriate to guide this research because it allows for specific descriptions of settings and experiences (Kleining and Witt, 2001; Tuan, 1996, Cloke et al., 1991) in a way denied by empirical and positivist social inquiry. It also provides a key for explicating meaning. (For a more detailed explication of hermeneutics and its cannons, see Kleining and Witt, 2001; Kvale, 1996; Cloke et al., 1991).

3.2. Data Collection

The study employed in-depth interviews as primary methods of data collection. In-depth interviews were considered appropriate for the study because they allow access to people's experiences and perceptions of their settings (Kvale, 1996). In the following section, I will briefly explain the rationale for the choice of interviews as the data collection method, how and why I selected my participants, and the data collection process.

3.2.1. Interviews

Qualitative researchers use a variety of techniques to explore the way social actors experience their world and make meaning of that experience. These techniques include in-depth open-ended interviews with groups (focus groups) or individuals; participant observation; textual interpretation or document analysis; oral history; narratives; life history and film (Gubrium and Holstein, 2000; Winchester, 2000; Strauss and Corbin, 1998; Baxter, 2000; Baxter and Eyles, 1997; Kvale, 1996; Miles and Huberman, 1994). This study employed an in-depth open-ended interview technique to collect data from individual participants.

In-depth interviews attempt to understand the world from the subject's point of view, to unfold the meaning of people's experiences and to uncover the life world prior to

scientific explanations (Kvale, 1996; Miles and Huberman, 1994). Interviews therefore provide deep and meaningful data that reveal each individual's perspective. Second, interviews allow us to access another person's opinion and discover things we cannot directly observe (Dunn, 2000; Lindsay, 1997; Kvale, 1996; Patton, 1990). The conversational nature of an interview gives the interpreter the opportunity to learn about experiences, feelings and hopes in a semi-structured format (Dunn, 2000; Kvale, 1996). Third, the technique also respects and empowers participants during the interactive process (Dunn, 2000). In other words, it allows participants to be reflexive of their experiences and provides them the opportunity to learn more about the research project (Dunn, 2000). Finally, interviews provide insight into events and people's experiences and opinions, which are influenced not only by situational factors but also by their class, ethnicity, age and sexuality (de Beer and Koortzen, 2000; Dunn, 2000). Using interviews therefore allows an understanding of differing meanings among different people.

3.2.2 Participant Selection

Three gold mining companies from the Wassa West District and their closest neighbouring communities were selected using criterion sampling, which involved selecting participants that satisfy some pre-determined criteria (Bradshaw and Stratford, 2000; Miles and Huberman, 1994). Even though the impact of mining activity transcends the immediate community of the project site, research has shown that such impacts decrease with distance from the mine site (Rickson et al., 1995; Dalsted et al., 1980; Down and Stock, 1977). Proximity to the mine site was therefore the main criterion used to select the study communities.

Participating companies were chosen to maximize the variability of the concept I want to explore – *community/company relationships*. The selection process included reconnaissance visits and company/community pairs (Table 3.2) were selected based on the following criteria:

1. My accessibility to participants so as to minimize data collection costs;
2. Willingness of participants to enlist a sufficient number of people to interview; and,
3. Willingness of participants to provide sufficient contextual information.

Table 3.1. Study Participants

Company	Community	Sample size
Company A	A	10
Company B	B	10
Company C	C	10
Total Sample Size		**30**
Company D*	D	10

* Standby company/community. This was meant to replace any of the company/community pairs that would have opted out or refused to participate in the study. For confidentiality and anonymity, pseudonyms have been used.

The number of participants required for any credible research project is a function of the purpose and nature of the study (Strauss and Corbin, 1998; Silverman, 1993), as well as the number of experiences a study requires (Baxter and Eyles, 1997). Thus, as Baxter and Eyles (1997) argue, small sample size should not necessarily impair the credibility of qualitative research.

My sample size of 30 community and company participants and four government personnel was based on consensus by qualitative researchers that the responses of sampled participants are not intended to generalize the views of the total population. Rather, the methods document in detail the opinions and perspectives of a relatively small number of key informants who are purposefully selected for the light they can shed on a topic of interest (Bradshaw and Stratford, 2000; Gubrium and Holstein, 2000; Winchester, 2000; Strauss and Corbin, 1998; Baxter and Eyles, 1997; Kvale, 1996; Miles and Huberman, 1994).

Using a purposive sampling procedure (Bradshaw and Stratford, 2000; Miles and Huberman, 1994; Patton, 1990) I selected seven key informants from each community and three from each company. Key informants were persons from both the public and private sectors having knowledge of the community (or the research problem) under investigation (Burdge, 1995). I employed stratified purposeful sampling in the selection of community participants (Bradshaw & Stratford, 2000; Miles and Huberman, 1994; Patton, 1990). Stratified purposeful sampling is the selection of participants with differing expertise on the research problem, and who constituted different sub-groups within the communities (Bradshaw & Stratford, 2000; Miles and Huberman, 1994;

Patton, 1990). The aim was to enable me to maximize the variation and similarities of perspectives across groups (Baxter and Eyles, 1997).

3.2.2.1. Rationale for the Selection of Community Participants

The seven key informants from each community included three opinion leaders, and four community residents. The community residents comprised representatives of farmers, representatives of traders, a company employee and an unemployed person. I selected indigenous people when possible for my study because they were assumed to have stronger attachment to their communities than a newcomer who had come because of employment opportunities. Moreover, indigenous people could provide information about pre-mining socio-economic conditions of the community, information required to enable me make informed decisions about the impacts of the project on the community. Thus place attachment and history of the community made indigenous people particularly relevant to my research questions. I considered these participants 'experts' who could provided insights into the problem better than any other group in the community, even though they all lived in the same experiential settings (Gubrium and Holstein, 2000; Miles and Huberman, 1994).

The following are the rationale for interviewing community opinion leaders. First, I followed a common strategy in socio-economic impact studies on resource development in Ghana that used opinion leaders (see Akabzaa and Darimani, 2001; Salami and Tsekpor, 2000; Aubynn E.A., 1998a; Aubynn E.A., 1998b; Aubynn A.K., 1997; Songsore et al., 1994; Study Companies' EIS Reports). Also, similar research conducted elsewhere recognized the importance of involving opinion leaders as participants (see Downing et al., 2002; Viega et al, 2001; Leistritz and Root, 1999; Sanchez, 1998; Burdge, 1995; Rickson et al., 1995; Schriner et al., 1980). Second, opinion leaders not only provided insight, but also were residents and therefore part of the relevant sample. Third, political structure is the means through which most of the impacts of projects development are handled (Schriner et al., 1980). Opinion leaders are local political figures (see Chapter Two) and thus might have special insights about the companies' impacts on their communities than perhaps average residents. Fourth, community opinion leaders were automatic members of company/community liaison committees set up in

some mining communities to handle community complaints. They are also the first point of contact by mining companies that invest in communities. They have therefore had much interaction with the mining companies to provide useful insights into the study. Fifth, most mining companies in Ghana deal with communities through elected and/or appointed leaders. Residents often channel issues of concern that need attention from the companies through opinion leaders. The leaders therefore had a more in-depth knowledge about concerns of mining than average residents. Sixth, all donations and/or company community assistance were made through opinion leaders in the communities, sometimes without the knowledge of other community residents. Thus opinion leaders had relatively more knowledge about company assistance to the communities than an average resident. They were therefore included to enhance the richness and depth of community experience about mining activity.

I included the views of farmers because the surface-based activity of the companies conflicts with farming, which is the main economic activity of residents in the study communities. Farmers were therefore hard-hit in terms of direct dislocation and perceived inadequate compensation. Second, farmers in the study communities had an association that directly dealt with the mining companies for review of farm compensation rates. They had therefore had much interaction with the mining companies. Finally, one of my indicators for the assessment of the impact of the companies' activities on the communities was agriculture, and farmers were most capable of articulating agricultural impacts.

I assumed the views of traders important because trading activity constituted the second major economic activity in rural Ghana, after agriculture. Many people obtained their livelihood from this sector. The boom and bust of mining is said to have considerable "second order" impacts (Vanclay, 2002:29) on trade and commerce in resource communities (Leistritz and Root, 1999; Krannich and Lullofs, 1992). Thus I considered vital for the study, the traders' perspectives about how they were coping with this potential social change. Second, one of the aims of project development is to diversify the manufacturing and tertiary sector bases of the local economy (Burdge, 1995). Project establishment leads to purchases of local supplies, and hence expansion or creation of other sectors in the local economy. It was assumed interviewing traders would

enable me to assess the indirect effects of the mines on the communities, particularly on indirect job creation. Finally, in rural Ghana, women operate mainly in the trade and commerce sector. I therefore assumed the inclusion of traders' perspectives would ensure representation of both genders. Gender representation was particularly important as issue perception is influenced by a combination of factors, among which include gender (de Beer and Koortzen, 2000). I must emphasize, however, that I did not achieve gender equity in the final sample size because males occupy most of the positions of participants I interviewed. Thus out of the 30 community and company participants interviewed, three were women selected from each of the three mining communities (see Chapter Four).

Employment is a promise of resource development in local communities, particularly for the locals who were, before the project, unemployed (Burdge, 1995). I assumed mineworkers and unemployed residents in the communities would provide diverse and conflicting perceptions about employment issues in the study area. Interviewing conceptually polarized participants (Miles and Huberman, 1994) enabled me to understand the intricacies about the issue of employment in mining environments. Meanwhile, studies have shown employment is one of the most crucial factors which mars the smooth relationships between mining companies and their neighbouring communities (Downing et al., 2002; Sumi and Thomsen, 2001; Veiga et al., 2001; Salami and Tsekpor, 2000; Aubynn E.A., 1998a; Boateng, 1997).

3.2.2.2. Rationale for the Selection of Other Participants and Materials

Aside from community informants, I also interviewed the Human Resources, Local/Public Affairs, and the Environmental Managers/Officers of each company because they were responsible for local employment, company/community relations, and the environment. Additionally, I obtained copies of companies' Environmental Impact Statements (EIS) reports and documents on community assistance activities as secondary documents. EIS reports provided context and helped describe the pre-mining conditions of study communities. Documents on community assistance activities helped discern the differing attitudes and commitments of each company towards community development.

Finally, I also interviewed four personnel from key policy-institutions overseeing the mining industry in Ghana and a representative of the Wassa West District

Administration. These participants were selected on the basis of their knowledge and experience relating to the subject of investigation (company/community relations). While Ghana Minerals Commission oversees the issuance of prospecting and mineral licenses to mining companies, the Ghana Environmental Protection Agency issues environmental permits to mining companies. Wassa West District hosts and hence, administrates the mining companies operating in the selected communities. The Chief Executive Officers of these institutions were selected and their delegated representatives participated in the research. These four participants together provided some representation of Government views.

3.2.3. Data Collection Process

Interviews began in March 2001 and ended in July 2001. I gave company, community and government participants similar semi-structured open-ended questions to permit open responses (see Appendix A). Pre-structuring the interview schedule allowed for comparison of responses across cases for the purpose of enhancing rigour (Baxter and Eyles, 1997). The questions were carefully worded and ordered using accessible and clear language (Dunn, 2000).

The interview schedule was a guideline only and did not fully structure the discussion. Each interview ranged from two to four hours depending on situational factors, such as family obligations and prior commitments. I held all interviews in places mutually agreeable between myself and participants, usually in their homes and offices. During the interview process, I made participants feel at ease by using a conversational approach (Dunn, 2000; Kvale, 1996). This approach was to try as much as possible not to impose my influence upon participants but to try to achieve at least a symmetrical power relationship between myself as active research instrument on the one hand and participants on the other (Dowling, 2000; Baxter and Eyles, 1997). To achieve this, I told participants about how I first got their names, in order to eschew initial suspicion (Dunn, 2000); my ethnicity; their right to stop the interviews and ask questions; their right to demand copies of interview transcripts (Baxter and Eyles, 1997); and, their right to discontinue the interviews before it ended.

The low levels of education in the communities necessitated the use of the local Wassa language in the administration of the interviews. The interview questions were

originally in English, but I translated questions into the local Wassa language for community informants who did not understand English. With the exception of one participant in Community A, who chose to be interviewed in English, I interviewed all respondents in the local Wassa dialect.

To ensure consistency of interviews, I conducted trial interviews in the communities and tape-recorded proceedings upon prior consent from participants to determine areas needing improvement. I tape-recorded all interviews upon prior consent from participants and strictly adhered to all ethical considerations in human research (*see Appendix B*). Interviews were later transcribed by me and, where necessary, translated back to English for analysis.

3.3. Selection of Impact Indicators

To understand any major community intervention (e.g., a mining operation), one needs to examine the matrix of social, economic and environmental characteristics that attach people to the place, and how the intervention has either enhanced or worsened these characteristics. Thus, I selected diverse social, economic and environmental impact indicators for the study (Table 3.2). Although some of these variables had been used in similar studies, I incorporated additional relevant variables (Baxter and Eyles, 1997).

Table 3.2. Impact Indicators

Economic	Social	Environmental
Agriculture	Education	Water and Sanitation
Trade and Commerce	Housing/Settlement	Air Quality
Employment/Job Opportunity	Land Tenure/Alienation	Noise and Ground Vibration
Income Level	Security (crime)	Diseases
Socio-economic Infrastructure	Cultural Values	Land Degradation/Pollution
Cost of Living	Population	Built Environment
	Health	

I selected economic, social and environmental indicators because they constitute the three pillars of sustainability (Richards, 2002; Veiga et al., 2001; Habirono, 2001; Hilson and Murck; 2000). Variables representing these pillars have been examined in other studies on the socio-economic impact of resource development, including sustainable mining (see Richards, 2002; Veiga et al., 2001; McAllister and Millioli, 2000; Humphreys, 2001; Hilson and Murck, 2000; Akabzaa and Darimani, 2001; Burdge, 1995;

Rickson et al., 1995; Dalstedet et al., 1980; Down and Stock, 1977). I also selected the study indicators because they have been documented in the study companies' EIS reports, which provided baseline information about the communities. Researchers who have conducted similar studies have used EIS reports of existing companies to characterize the environmental setting of project sites (see Damman et al., 1995). This also informed my decision to use indicators from the companies' EIS reports for my analysis.

Cutter and Renwick (1999) explain environmental sustainability as "maintaining the physical condition of the environment, especially those aspects of natural systems on which we depend for our health and welfare..." (Cutter and Renwick, 1999:352). Given that mining activity affects such physical elements as water, air and land that are key to community health and welfare, I selected these indicators because they are based on theories of sustainable development and are both identified in the literature from related studies (including my own past research) as well as based on EIS reports.

3.4. Data Analysis

Qualitative data analysis involves structuring large and complex interview data into a presentable and communicable framework for the reader (Neuman, 2000; Lindsay, 1997; Kvale, 1996, Miles and Huberman, 1994). Baxter (2000) suggested seven methodological procedures to analyze qualitative data. These include: data collection (data gathering); coding of data for themes (coding); memoing thoughts about the data (memoing); exploring data for concepts (data exploration); distilling data to remove the 'wheat from the chaff' (data distillation); linking concepts and ideas into a coherent theory (theoretical development); and finally, using the concept to reconstruct the event or experiences of the subject under investigation (theoretical representation). I followed Baxters' recommended procedures in my analysis of company/community relationships.

3.4.1. Description and Process

After completing my interviews, I played back the interview tapes to get a sense of respondents and to identify patterns and themes as they emerged. I also played the tape to ascertain whether I had reached a point of saturation in my data collection exercise (Strauss and Corbin, 1998). This was to help determine whether additional interviews were required. I then navigated through findings of similar studies, such as Thomson and

Joyce (2000), Veiga et al. (2001), McMahon and Strongman (1999), Mcfarlane and Akabzaa (1999) to ascertain whether the themes came from concepts in the literature or otherwise (Neuman, 2000).

Upon transcription of all the interviews, the text was cleaned and imported into Nvivo, a qualitative data management and analysis software package designed to aid users in handling unstructured and semi-structured qualitative data, by supporting coding and theory building (Bazeley and Richards, 2000; Peace, 2000; Richards, 1999). Cleaning involves removing extraneous and repetitive material from interview texts to ensure that transcripts become relevant to research questions (Peace, 2000; Neuman, 2000; Miles and Huberman, 1994). Data cleaning for NVivo also involves removing all numeric data and tables from the interview texts (Bazeley and Richards, 2000). The three main uses of NVivo are managing documents, creating ideas and managing theories, and asking questions (Bazeley and Richards, 2000; Richards, 1999).

I observed patterns and themes when combing through the data in NVivo. I first coded the emergent themes using Free Node. "Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study" (Miles and Huberman, 1994:56). Free Nodes were used to code hunches, surprises, emergent themes, and information that I considered significant to help answer the research questions (Bazeley and Richards, 2000; Richards, 1999). I also used hierarchical Tree codes to group together pre-existing themes from responses to interview questions to facilitate analysis. Thus coding enabled me to reduce the data into conceptual categories and themes (Neuman, 2000, Baxter, 2000; Miles and Huberman, 1994). Memoing my thoughts about conceptualizing company/community relationships occurred at the same time as I was coding emergent themes. Memoing provided a sense of direction throughout the analysis (Baxter, 2000).

After coding came data exploration, where I organized my initial theoretical ideas about the coded themes by making connections among themes (Baxter, 2000; Neuman, 2000). Primarily, I reviewed and examined initial codes and looked for concepts that clustered together. At this stage, I combined many closely related categories into one more general one (Neuman, 2000; Miles and Huberman, 1994). For instance, in the

analysis of rationale for community expectations of companies, several closely related categories from the data clustered around three general themes (Table 3.3).

Table 3.3. Derivation of Clustered Themes

General/Major Themes	Coded Themes: Community Responses
Negative Impacts	• Destroying future asset (land) – sources of our revenue. • Bear the greatest impact – need to be compensated. • Social insurance – against post-closure effect.
Benefit Sharing	• Own the resource – contribute resource to the enterprise; we are also stakeholders. • We host the mine – as gesture for hosting the mine.
Corporate Responsibility	• It is their corporate social responsibility – done everywhere. • Parents – they are our parents; should cater for our needs. • Government neglect of rural communities – companies are surrogate government.

Thus by exploring and consolidating codes in the manner shown above, I managed to make connections between evidence and concepts so as to build a web of support in the qualitative data (Neuman, 2000; Baxter, 2000; Miles and Huberman, 1994).

Following data exploration, I distilled data into key ideas for theoretical development (Baxter, 2000). To do this, the data and previous codes were scanned for cases that illustrate and make comparisons and contrasts. Since the objective of the study was to identify similarities of experiences across cases, I employed Neuman's (2000) *method of agreement* analytical technique to establish common experiences among communities and companies, such as illustrated below (*see Appendix C*):

Table 3.4. Hypothetical Method of Agreement Technique

Community A	Community B	Community C
X	X	X
Y	Y	Y
Z	B	A

Adapted from Neuman, (2000:428)

From the table, for instance, all three communities shared two common hypothetical experiences (X and Y) but differed in the third experience. This technique enabled me to focus mainly on similarities of community experiences to strengthen theoretical ideas. In

the analysis, I realized residents often compared their experiences to their pre-mining situation or other mining conurbations elsewhere in the same country. It was easier to explain a complex experiential concept by discussing it in comparison with what is not. This style facilitated understanding of the way experiential knowledge about company/community relationships was constructed. Contrast and comparison in residents' experiences made it possible to organize the data around particular frameworks.

After data distillation, I organized initial theoretical ideas about the data into a coherent theoretical framework. This was where theoretical ideas from the thesis were melted into a conceptual framework (Baxter, 2000). According to Miles and Huberman (1994), theoretical ideas about research can be conceived by considering relationships between, or among the research questions. This process was aided by moving back and forth to the literature to review the underlying themes for the study, and also by looking for new literature to shed light on the study results. The theoretical ideas were then used to organize the data chunks. In organizing conceptual ideas into a coherent theoretical development, care was taken to ensure that my preconceived notions did not blur residents' experiential concepts. Neuman (2000) noted that, "strong prior notions of where to look and what data are relevant may inhibit a researcher from noticing other relevant or discomfirming evidence" (Neuman, 2000:436).

Finally, I used the theoretical concepts to reconstruct the experiences of the communities' relationships with the mining companies by selecting residents' interview text and other summary devices (such as graphs and theme frequency tables) to show key aspects of the theoretical ideas (Baxter, 2000) (See Chapters Four and Five).

3.5. Ensuring Rigour

Rigour, in qualitative research, is a set of criteria used to measure the credibility, transferability, dependability/reliability and confirmability of qualitative research results (Baxter and Eyles, 1997). Credibility refers to accurate reconstruction of participants' experiences such that participants could situate themselves in the description, while layperson readers could also understand what is being described (Baxter and Eyles, 1997). The techniques required to achieve credible research results include: appropriate

sampling procedure (mainly purposive sampling); prolonged engagement of researcher with participants and the study setting; and peer de-briefing. (Baxter and Eyles, 1997). In my study, I met some of these criteria. For instance, I employed stratified purposive sampling technique in the selection of my participants to avoid personal biases inherent in snowball sampling (Baxter and Eyles, 1997). The reconnaissance visits made to the problem sites, the trial interviews conducted and the five months actual data collection period enabled me to, at least, meet the criteria of prolonged engagement with the study setting. Together with the trial interviews, I engaged with the communities for about eight and half months. Furthermore, my data interpretation passed the scrutiny of my research supervisors to avoid misrepresentation of participants' experiences.

Transferability refers to the extent of applicability of research findings to settings other than the study context (Baxter and Elyes, 1997). To achieve this, the researcher ought to engage in multi-sites study as well as present vivid and comprehensive description of the study context (Baxter and Eyles, 1997). My study met these criteria by selecting three mining communities so that I could compare the results and make meaningful conclusions. In addition, I presented a comprehensive description of the study area to provide informed knowledge about the study region, and how it compares with other settings. On the basis of these arguments, the findings of my research may apply, at least to other mining conurbations in Ghana, if not beyond.

Dependability and reliability of qualitative research can be enhanced by at least three interrelated sets of techniques. These include low-inference descriptors, mechanically recorded data, and participant-researchers (Baxter and Eyles, 1997). Low-inference descriptors and mechanically recorded data are techniques of verifying the harmony between data interpretation and data sets. These techniques include field notes, audio recording of interviews, and verbatim transcriptions (Baxter and Eyles, 1997). I audio-recorded my interviews and created verbatim transcripts for interpreting my results. Participant-researcher technique involves introducing different views in data analysis (Baxter and Eyles, 1997) This was done by my research supervisors, who provided alternative perspectives in the analysis, thereby strengthening my theoretical ideas.

To meet confirmability, a qualitative researcher should write or situate him/herself into the research design. I met this criterion by situating myself in the research (see Appendix D).

3.6. Study Limitations

As with any study, this one has limitations. First, the study is primarily descriptive and exploratory. Its purpose is not to empirically test a hypothesis. Rather the emphasis is to understand the concept of mining company/community relationships. The study also emphasizes the effect that the mining projects have had on the development and viability of mining communities in Wassa West District of Ghana. This study used people's perceptions to understand the effect of mining development on community life. I did not undertake any physical measurement of the selected indicators used in the study, thus the companies' 'real' impact on the selected indicators cannot be accurately discerned from the study results. I used residents' perception because community residents, as subjects of change, are in the best position to contribute to an understanding of consequences of project development on their lives (Vanclay, 2002; Macfarlane and Akabzaa, 1999). Aside from this, the perceptions held by mining companies about project impacts might not be consistent with how a particular community actually perceives mining. Thus documenting community perceptions of mining would assist with more effective communication between companies and neighbouring communities, which is crucial in negotiating acceptable relations. Perceptional study (i.e. my study) is therefore relevant because perceptions of an issue approximate 'reality', and it constitutes a useful road map to the reality of the problem.

The study of relationships, development and impacts are interdisciplinary in nature. Therefore concepts from a number of disciplines, including rural sociology, political science, human geography, natural resource sociology, and planning have been explored and integrated. No one particular source or field of study is emphasized. Interdisciplinary research, however, requires a collaborative effort of many experts in different fields of endeavour. I am not an expert in all of these fields even though I have taken courses and read literature in these areas. Lack of expertise in these fields might affect my interpretation of research results. However, my supervisors provided critical

auditing of my interpretation, which helped minimize personal biases and misinterpretation of results.

Third, the scope and rigour of this research project were limited within the constraints of time and budget. The scope is limited because it would have been useful to investigate more than three companies and communities within the same district to be able to make authentic claims about the transferability of my results, at least to other mining conurbations in the district, even though qualitative research does not purport to generalize or transfer results. Moreover, it would have also been useful to extend the study beyond one geographic district (i.e., Wassa West District) and increase the sample size beyond 30 participants. Cross comparison of company/community relationships in different geographic districts in Ghana and increased sample size would have provided more transferable results to other parts of Ghana. Furthermore, time and budget could not afford me the chance to undertake member-checking to ensure accuracy both of my interpretations of results and interview transcripts. Similarly, I could also not afford to pay someone with knowledge in the Wassa language used in the interviews to cross-check the accuracy of my transcripts in Canada. Therefore my interview transcripts were not audited by my supervisors or any other person with knowledge in the Wassa language. However, to the best of my ability I translated and transcribed them verbatim.

Fourth, much of the value, but also the problems, with perception studies result from their emphasis on people. Though individual perceptions of an issue can begin to elucidate the reality of the problem, such data often contain individuals' in-built biases that may not constitute a representative view. Thus the participatory methodological approach employed in the study might overstate the value of local knowledge in contributing to an understanding of project impacts. Moreover, the transitory nature of people's perceptions and associated problems in evaluating them means there is the need for a constant re-evaluation of people's perceptions of mining in the study area. This calls for a longitudinal approach if meaningful conclusions are to be drawn. However, longitudinal study designs are time and cost-intensive and were beyond my resources. Contrarily, I adopted a cross-sectional approach to my study, which is a limitation to my conclusions.

Fifth, the number of studies done on individual communities that participated in my research is either very limited or non-existent. This limits the available sources of secondary information from these communities. A number of vital community data were non-existent, unavailable to me or inaccurate. Pre-existing studies in the communities would have been useful to incorporate into the study to crosscheck the reliability or validity of some community level data that were collected.

Sixth, the quality of responses in my interviews was adversely affected by the low educational level of some of the study participants and the necessity for me to interpret the questions and instructions into the local language. Though I managed to maintain consistency in my interpretations of questions, this translation may affect the internal consistency among community participants who used English versus the local language. However, in all the three study communities, only one participant used the English language, and so the limitation of internal consistency may not have greater effect on study results. I used English throughout for company and government participants and so was able to maintain internal consistency in those interviews.

Moreover, I used purposive sampling in the selection of study participants. This involves self-selection of participants with knowledge on the topic of investigation. Self-selection of participants may have introduced some biases in the selection process. However, the selection process was stratified to ensure a representative selection of community subgroups. The selection was also guided by literature on the social impact of project development, past research on a similar topic, and local knowledge on impact indicators selected for the study. In addition, all selected participants readily and voluntarily agreed to participate in the study. Thus the study strove to capture the views of selected participants.

Finally, my motivation in selecting the research topic, as well as my values, beliefs, interests, and past working experience with a mining company may have combined to influence my interpretation of the data. Nonetheless, I have acknowledged my underlying values in the thesis (*see Appendix D*) to enable readers assess the appropriateness and usefulness of the analyses (Guba and Lincoln, 1994).

Despite these limitations, the design and implementation of my research, namely a cross-sectional design, are within the guidelines of rigorous qualitative research. As

Baxter asserts, "the principal goal of qualitative research is to produce credible interpretations [of a phenomenon] that apply to a specific group at a specific point in time" (Baxter, 2000:3).

In conclusion, I employed a mainly qualitative approach in the design and implementation of the study. Thirty participants were selected from communities and companies, and four from government. I selected communities that are closer to the mine site to permit in-depth understanding of the research questions. I interpreted my data mainly from a hermeneutical conceptual framework. I attempted to achieve rigorous results by following Baxter and Eyles (1997) recommendations.

Chapter Four

Results

The chapter begins with participants' descriptions followed by community responses, where I present community expectations and perceived impacts of the companies' operation. I follow this with company responses to community expectations and perceived impacts. The section concludes with sources of community/company contention. Throughout the analyses, I use direct quotations from transcripts to show particular themes and to provide the context of the responses (Luginaah et al., 2002).

4.1. Description of Study Participants

I interviewed individuals from three communities and three mining companies. In each community, I interviewed seven people — three opinion leaders and four residents. I also interviewed nine managers and senior officers of companies, as well as four key government personnel overseeing the mining industry. Table 4.1 shows the socio-demographic characteristics of community participants.

Table 4.1. Characteristics of Community Participants

Characteristics	Community A	Community B	Community C	Total
Sample Size	7	7	7	21
Gender:				
Male	6	6	6	18
Female	1	1	1	3
Marital Status:				
Married	6	6	6	18
Widowed/Divorced/Single	1	1	1	3
Age:				
Range of Age	28 - 60	25 - 68	22 - 68	22 - 68
Median Age	44	45	46	45
Education:				
No Formal Education	0	1	1	2
Elementary/Sec/Tech.	4	4	6	14
Poly/Teacher Training/Univ.	3	2	0	5
Interview Language:				
Local Language (Wassa)	6	7	7	20
English	1	0	0	1
Place of Origin:				
Born in the Community/Indigene	6	4	0	10
Not Born in the Community	1	3	7	11
Ethnicity:				
Wassa	6	5	1	12
Others	1	2	6	9

Source: Computed from Interview Data (May 2001)

The educational background of the respondents in the three communities was generally low, with the majority (11) having basic education only. Community A had a relatively higher education level than B and C, with Community C having the least. None of the respondents had a university education. The respondents are representative of a published survey of the area, in which 64% of 2,035 survey respondents had only basic education, and 2% had tertiary education (Salami and Tsekpor, 2000). Ethnically, 11 out of the 21 respondents were long-term immigrants who had lived in the communities for more than 18 years. I identified only 12 participants as indigenous Wassa people. This result is also consistent with other studies in the communities and the District as a whole, which revealed a large immigrant population (Salami and Tsekpor, 2000; WWDA, 1996; Companies' EIS Reports). The migrant population, however, varies in each community. In Community A for instance, six out of seven respondents were indigenous Wassa people. In contrast, only one respondent was of Wassa origin in Community C. The rest migrated to the area for agricultural ventures. Community C is termed a settler or migrant community (Company C EIS Report, 1990).

I interviewed nine managers and senior officers. With the exception of one expatriate manager from Canada, the three managers and senior officers I interviewed from each company are all Ghanaians by birth. They are males with a university degree. Only one respondent is a native of one of the host communities. The rest are non-indigenous workers who came from other parts of Ghana.

The four government personnel are also males with a university degree. They were the Principal Mining Engineer, and the Senior Monitoring Officer of the Ghana Minerals Commission; the Environmental Protection Agency Officer of WWD; and the WWD Planning Officer who stood in for the District Chief Executive.

4.2. Communities' Expectations of Companies

In the interviews, I asked community respondents to rate their pre-mining expectations of the impact of companies on local development, in the range of "very high" to "very low". Twelve of 21 respondents had "*very high*" expectations towards the companies, while seven had "*high*" expectations (Table 4.2). Only two respondents felt that the residents themselves should develop their communities and that the companies

should just provide a supporting role. These two felt that relying on companies for development is unsustainable since the projects may be relatively short-lived.

Table 4.2. Community Expectations of Development from Mines

Ratings	Community A	Community B	Community C	Total
Very High	4	6	2	12
High	3	1	3	7
Moderate	0	0	2	2
Low	0	0	0	0
Very Low	0	0	0	0
Total	7	7	7	21

(Source: Computed from interview data, May 2001)

Generally, there was a very high expectation among residents that the companies were responsible for local development:

> When news got to us that the mine is going to operate here, indeed we became very happy. This is because we thought (1) the mine would provide employment for the youth; (2) the mine could support the community in its development effort. These actually made us happy.... (Community B resident)

> I was expecting that our husbands would get jobs from the mine so their wives would also benefit. In fact for this reason, we were very happy when we received news about the mines. This is because some people in the community were unemployed so if God has helped the community to benefit from mining, we welcomed the news with joy. It was also our expectation that the mine would provide development assistance to the community so the place would develop and attract more people. All these expectations have become a mirage.... (Community C resident)

These typical responses indicate initial trust (but also perhaps unrealistic expectations) communities had in companies, which eventually waned because of unfulfilled expectations. The responses also indicate the nature of communities' pre-mining expectations towards local mining. These expectations fall into three categories: community development, employment and compensation, and corporate responsibility.

4.2.1. Community Development

Community developments were public benefits that communities expected from local mining, and included basic infrastructure, as well as annual development projects. Among some of the infrastructure the residents expected included: good roads and their maintenance; a health clinic; piped water (rather than boreholes); electricity; good schools; a sustainable public toilet facility; a community centre; a market facility; and a

community library. Residents believed these infrastructure would help sustain the tempo of the communities after the mines are gone:

> The initial expectation was that, since there was going to be a mining company in the community, there was going to be provision of social amenities and social infrastructure like provision of schools, good drinking water, electricity, and so on. We requested these amenities from the company because we thought provision of these infrastructure would make the community lively and prevent the youth from moving into cities when the mine closes (Community A opinion leader)

Residents also expected that the companies would provide them with annual development projects, including scholarships for deserving students; a community assistance fund; and income-generating ventures that could yield income for the community after mine closure:

> We accepted the mine because we thought accepting it would open up opportunity for employment and community development…. Certain development requests, such as provision of schools; clinic; electricity; piped water; good toilet facility; road maintenance; market facility; scholarship for our children; money to take care of the community after mine closure etc., were put before the company during our initial meeting, which they agreed to assist… (Community C resident)

The above responses demonstrate typical expectations of residents in the three communities.

Another community development expectation was that the presence of the mines would boost local trade through local purchases from companies and its workers. They believed this would benefit the local economy through workers' expenditures, which would help create secondary jobs:

> We expected the company would encourage their workers to stay in the community to boost trade and commerce so that some of their expenditures could be retained in our local economy…. They should not encourage their workers to stay at Tarkwa and Abosso because that would not expand local market for secondary jobs (Community A opinion leader).

> Also if the company could encourage or even enforce their workers to live in the community to help boost the local market to create secondary employment, that would enhance company acceptance in the community. You know, most of the company employees stay in the urban centers thus depriving the community from benefiting from expenditures of these workers (Community B resident).

Thus local infrastructure, a scholarship scheme and workers living in communities to support local trade were communities' major development expectations of the companies.

4.2.2. Employment and Compensation

Employment and compensation expectations were mostly expressed in terms of benefits to individuals, but some were also framed as community benefits. Residents' most common expectation of companies was that the mines would provide employment for all local labour. Residents also expected that companies would give local labour preferential treatment for jobs:

> We expected the company would employ every youth in the community who has reached employment age. If the person is without qualification, I believe there would be jobs for his/her raw skill.... I know mining companies have vacancies for labourer jobs that could absorb these people. Mining work is not only meant for those with education and specialized training (Community A resident).

Residents also thought the mines would provide them on-the-job training at the mine site so they could add value to their skills. Residents expected the mines would also provide skill development training for those who could not secure employment with the mines so they could become self-employed. In addition, residents felt the companies would give priority to indigenous contractors so that moneys from the companies could be retained locally:

> We also expected that the company would employ more people in the community because [Community B] is a farming community with a large number of people within their prime age being farmers. So if our farmlands were going to be under surface mining, then we expected that all the people within their youthful stage would be employed to take up certain duties in the company. We also expected that the company would employ and train the youth who do not have the skill to work with them.... Where the company cannot provide jobs for all the youth in our community, we expected them to train the youth in alternative employment so they would not depend on the company for jobs. (Community B opinion leader).

> We told the company initially that all petty contracts be awarded to indigenous contractors, so the contractor could employ the indigenous people. An indigenous contractor knows the youth from the community and could ensure that the work goes to them (Community A opinion leader).

There was also an expectation that the mines would pay adequate and realistic compensation to property and resource owners who might be affected by the mining operation, including land, crops and buildings. The residents generally did not know the procedure for the acquisition of community land for mining purposes and thought the system is unfair to landowners who are directly affected by companies' activity.

4.2.3. Responsible Corporate Behaviour

There were also expectations of responsible corporate behaviour towards the host communities. The first of these is that the companies would honour their pre-establishment promises and meet perceived obligations to the communities:

> ...the company should honour all promises made to the community, especially about employment and development, because breach of promise constitutes breach of trust and lack of trust brings about suspicion and misunderstanding between the parties concerned. So if they want the community to accept them as partners, then the company must not renege on its promises to the community (Community B opinion leader).

> They [the company] should also try to live up to their promises, and should never promise if they think they cannot deliver (Community C resident)

Residents also expected the companies to consult and engage them in decision-making:

> ...in addition, it was our expectation that the company would respect us and also be a good partner. We expected that they would have a liaison committee to serve as a platform for regular meetings and consultations. The company should encourage this type of committee so they would be able to explain their activities to the community. The kind of dialogue and assistance the company would give to the community would determine our relationship because if the company just moved to the community, do the mining and at the end of the day just pack and leave,... the community would naturally become aggrieved (Community C Opinion leader)

Finally, residents, particularly in Communities A and C, expected that the mines would co-exist with the small-scale miners (*galamsey*) to prevent disruption of their livelihood:

> You know, not all areas in the company's concession are okay for large-scale mining so we expected the mine to give a portion of these lands to the small-scale miners. The gesture would provide jobs for the youth and relieve the pressure on the company for employment (Community C resident).

> In the area of small-scale mining, we expected that the non-active section of their [company] concession should be made available to the small-scale miners in the community so as to help solve the unemployment situation in our area (Community A opinion leader)

In summary, employment and community development constituted communities' major expectations from the companies. In addition, Communities A and C expected that the mines would co-exist with small-scale miners to sustain traditional employment (*see Appendix C, Tables C-1, C-2 and C-3*, for each community's expectations of the Companies).

4.2.4. Community Reasons for High Expectations

In my interviews, I asked residents to justify their "very high" expectations of the mines; in other words, why they thought it was the responsibility of the companies to develop their communities. Residents in the three communities identified the following common reasons for their expectations (see *Appendix C, Tables C-4, C-5, and C-6* for each community's rationale). The communities' rationale falls into three categories: negative impacts, corporate responsibility, and benefits sharing.

4.2.4.1. Negative Impacts

Residents perceived companies have destroyed communities' future sources of livelihood, particularly the land. Residents thought land destruction constitutes curtailment of community future earning capacity for development, and believed the companies are responsible for providing the communities with sustainable development that transcends the life of the mines:

> The land, which constitutes our asset and through which we derive our wealth to develop our community, has been taken over by the company. Thus if our sources of revenue for community development have been destroyed by the mine, then it is their obligation to compensate us for this loss with development projects (Community A resident).

> ...secondly, our sources of livelihood which we depend to raise revenue to develop the community have been destroyed with no adequate compensation. This has crippled the community to raise funds to carry out its development efforts. It is thus incumbent upon the company to assist the effort of the community to carry out its development activity (Community C resident).

Second, residents also argued that the closest community usually bears the greatest impact of mining activity, including its eventual closure and any potential environmental damage. They believed these uncertainties require adequate development compensation from the companies:

> [Community B] is the closest community to the mine.... In view of this, the company is obligated to assist the community in all its development requests. They are obligated to assist the community because they have destroyed our future sources of livelihood, particularly the land; moreso the closest community bears the brunt of the mine more than any other community. So if there is any community to benefit from the company, then it must be this very community (Community B resident).

> The community would bear the brunt of the impact of the mine closure or any unfortunate chemical pollution that might arise out of their operation, and so we need to be compensated adequately for these uncertainties. To insure us against unforeseeable future negative impacts, the mine is obligated to develop our community (Community A opinion leader).

Communities A and C also perceived that the mines' resettlement programmes have disrupted their lives and thus it is the companies' responsibility to ensure that the communities recover from the resettlement. They attributed an *in loco parentis* relationship to the companies, which have funds and thus were believed responsible for assisting communities in their development efforts:

> The company has resettled us. This is like a child/parent relationship. Even though the child should be able to look after him/herself, the parents must be seen to be contributing or supplementing the effort of the child. You know, resettlement disorganizes the socio-economic stability of a community and so such communities needed to be supported.... (Community C opinion leader)

> Since we now consider the mine as our parents, and since every child perceives his/her parents to be rich, we consider it an obligation for the company to develop our community because they have the wherewithal to do so (Community A opinion leader).

Though Community B has not been resettled by Company B, residents shared similar opinions of community A and C because they also attributed an *in loco parentis* relationship to Company B.

4.2.4.2. Corporate Responsibility

Residents stated that their settlements are rural and that the national government does not often provide development infrastructure for rural communities. Thus the companies were regarded as a surrogate government:

> We expect so much from the mine because the community has been a rural area and it is very difficult for the government to provide infrastructure to develop a rural community. I also think it is one of the responsibilities of these companies. That is when they go to certain areas, they are to help the community to provide socio-economic infrastructure (Community A opinion leader).

> Our expectations are very high because whenever a company goes to work in a community, it is the responsibility of that company to assist the community in its development efforts (Community B opinion leader).

4.2.4.3. Benefit Sharing

Residents argued that the communities are also stakeholders because they provide the mineral resources to sustain the enterprise and also host the mines:

> Listen, the gold resources they are currently mining belongs to the community, and so the community deserves its fair share of the benefits from mining these resources (Community A opinion leader)

> Our expectations are high because the "Whitemen" [investors] came all the way from their country to mine in our community. Even though they have entered into agreement with the government, they are undertaking their activity in our community and have no doubt affected the livelihood of some people in the area. So the community deserves at least 20% (though small) of annual earnings of the company as community benefits for hosting the company. This benefit can be used or invested to offset the post closure hardships that would afflict the community (Community C opinion leader).

Residents also contended that if shareholders are paid dividends for their *capital* contribution to the enterprise, management and employees are paid salaries and bonuses for their *labour*; then communities must also be remunerated for their *resource* contribution:

> ...I have even heard that the company has decided to stop giving us development assistance. If this is true, then it would be unfair.... They should not forget that it is our resources they are mining and that we are stakeholders in the mine. This should remind them that if they have the responsibility to pay their shareholders for their capital support, their employees for their labour support, then the community must also be paid for our resource support to the mine... (Community A resident).

> Yes, it is their responsibility to develop the community because if I have my gold resources in my land and the company has come to take it way, then it is their obligation to give us part of the benefits, and that is to develop the community (Community B resident).

Thus residents' perceived negative impacts of mining, government's lack of commitment for rural development, residents' perception that companies usually develop communities where they operate, and perception that communities were stakeholders of the mining enterprise, make residents believe that the mines are responsible for their development. The residents generally conveyed that the companies should regard local development as an obligation, and not as charity.

4.3. Communities' Perceptions of Company Impacts

Like all resource development projects, the operation of the mining companies has affected nearby communities. This section will present and analyze perceived economic, social and environmental impacts of local mining on communities.
I examined respondents' perceptions of selected economic, social and environmental indicators (see Chapter Three), using pre-mining conditions as baseline. On the perception scale of impact, –1 to –5 represented negative impacts, zero represented no impact, and +1 to +5 indicated positive impacts, with +1 or -1 representing minimum impact, and +5 or -5 representing maximum impact (Salami and Tsekpor, 2000).

4.3.1. Economic Impacts

A graphical summary of the net economic impacts is shown in Figure 4.1, calculated as the sum of all positive values (social benefits), minus the sum of all negative values (social cost) that residents placed on the impact indicators scale (*see Appendix C, Tables C-7, C-8, and C-9* for residents' evaluation of economic impacts). All three communities had relatively similar overall ratings for each category. Agricultural and cost of living impacts were generally negative, while trade/commerce, employment, income, and basic infrastructure were positive. I will focus on agriculture (mostly negative) and employment (mostly positive) as the two main economic impacts because the two themes had the largest number of mentions in the interviews, predominated across different respondents, and also represented a large amount of text in the interviews (Luginaah et al. 2002). Furthermore, employment was the major consideration for the communities' overwhelming initial support for the projects. On the other hand, surface mining conflicts with agriculture, the main occupation in the communities, leads to perceived negative impacts.

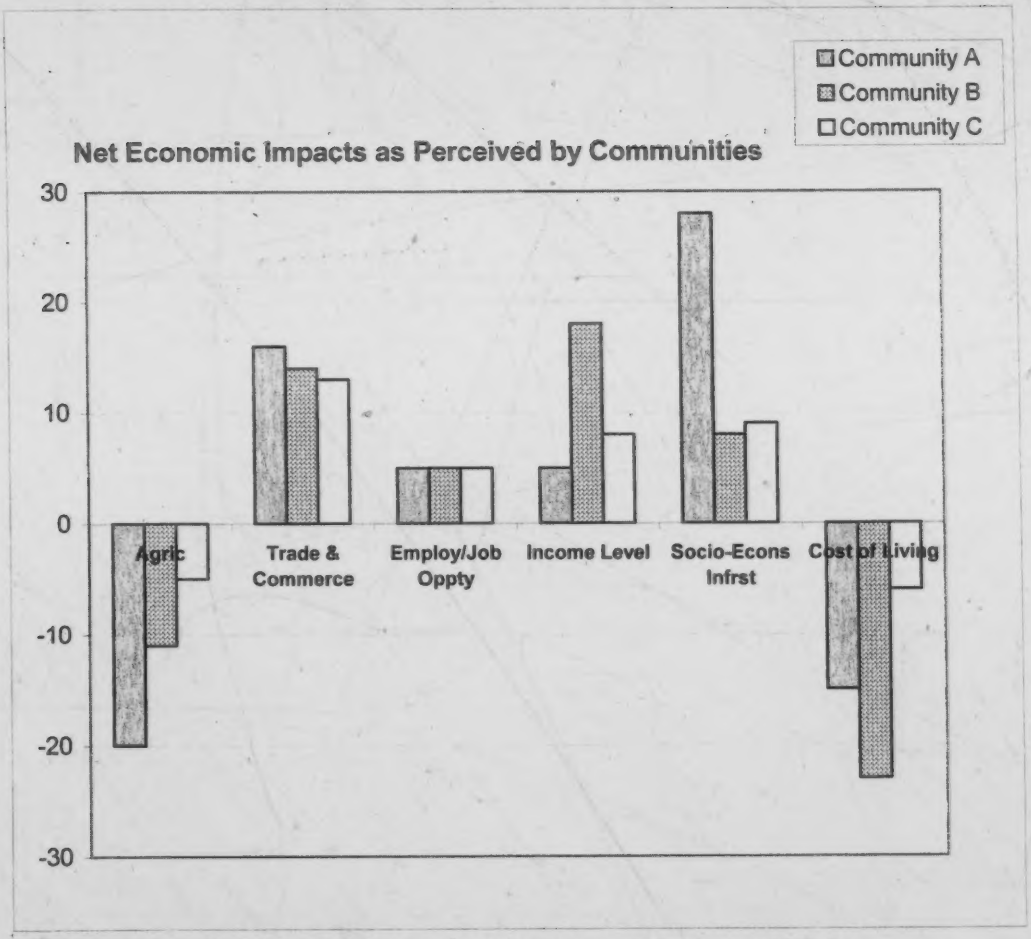

Figure 4.1 Communities' Perceived Net Economic Impacts of Mining

4.3.1.1. Economic Impacts: Agriculture

Perceived effects of the mines on agriculture in the three communities were generally negative. Fifteen of 21 respondents perceived a negative effect (*see Appendix C, Table C-10)*, while six held the opposite view. Those who thought the companies have worsened agricultural life explained that the surface activity of the mines alienated communities from their lands, thus rendering most of community residents landless:

> We were subsistence farmers during pre-mining times. Land for farming was very easy to secure. Today, most of these lands have become the property of the company and so have been destroyed in the process of mining. We do not have enough land to do our farms as we did before.... (Community A resident).

> Thirdly, the company has also disrupted our farming activity due to alienation from the land. Though the company pays compensation for farms destroyed in the process of their

> activity, the money is woefully inadequate. Most cash crops, such as cocoa and oil palm that bring annual income to the owners have all been destroyed because of the surface activity of the company (Community B opinion leader).

Residents also argued that the presence of the companies has drawn the youth away from agriculture, hoping for employment in the mines. Residents explained that the attractive high salaries of companies relative to agriculture was the main incentive that has drawn the youth away from farming, thus leaving farming jobs in the hands of old people. Residents also said the resettlement programmes have affected their farming activity:

> The new land that has been earmarked for our farming activity is very far from our community. It is about 4 to 5 miles away from the new community. This is very unfavourable to the farmers because there is no road connecting the land to the new community so farmers have to walk longer distance to and from farms. This really affects our productivity and well being (Community C resident).

In contrast, the six farmers who perceived a positive impact on agriculture argued that mining activity covers only a fraction of community land and that the presence of the mines has enlarged the market for farm produce:

> I see the mine impact on agriculture to be positive when compared with the pre-mining period. Most of the so-called negative effects on agriculture are mainly due to the laziness of the people living in the community. This is because most of the people previously engaged in farming activity have now stopped, expecting to get employment from the company. I see the impact to be positive because revenue from farming activity today is far more than revenue before the mine. This is because of ready market and high prices of foodstuffs. It is only those areas the company works that the land has been disturbed. All other areas are available for farming (Community B resident).

Despite residents' differing perceptions of the impact on agriculture, they all agreed that companies pay inadequate and unrealistic crop compensation to farmers:

> ...on the side of farmers, the negative thing we see in the company's operation are destruction of farms and related payment of compensation. Even though compensation is paid for farms destroyed, the process of payment takes considerable period of time to the dissatisfaction of farmers... Moreover, compensation paid for disturbed farms is very low. We have been urging the company to increase the rate to enable us cope with the economic difficulties of the day and also to have enough to pay for our children's school fees... (Community A resident).

In conclusion, destruction of farms, land alienation, perceived delay and inadequate farm compensation were communities' major concerns about impact of mining on agriculture, which they believed were negative.

4.3.1.2. Economic Impacts: Employment

Perceived impacts of the mines on employment in the three communities were generally a "qualified positive". Communities perceived improvement in employment, but not as much as expected. Employment emerged frequently even if respondents were talking about different issues. Thirteen of 21 respondents noted a modest improvement in employment; seven felt the impact on employment has been negative; and only one respondent believed the impact has been neutral insofar as some people have gained employment while others have lost their jobs (*see Appendix C, Table C-10*).

Before the mines, the main sources of employment in the communities were farming, charcoal burning and small-scale mining (see Chapter Two). Residents who contended positive improvement in employment explained that the quality of employment, in the form of high earnings for those directly employed, has had a strong multiplier effect on their hitherto subsistence economy. Residents believed the high earnings of the few employed have led to a boom in local enterprises, which were also considered a form of indirect employment They, however, admitted the number of people displaced by the mines (mainly farmers and small-scale miners) far outweighs those directly absorbed by the companies:

> Well, the mine has helped the community in the area of employment but this is far below our expectation. Even though some people have lost their jobs, others have also gained. Apart from those directly employed by the mine, others have also set up their own small-scale businesses such us local restaurants, saloons, retailing, etc. Some of the youth are learning trades like carpentry, masonry, driving etc., something we hardly saw during pre-mining period. All these have actually helped in swelling the employment base and boosting the local economy. Those who have managed to secure employment with the mine are better off not only to themselves, but also to their entire family, so I think this is positive… (Community B resident).

The response indicates that even residents who thought the mines' impacts on employment were positive were not happy with the companies' commitment to local employment.

The seven residents who perceived a negative impact on employment gave varied reasons:

> It is very negative because the mine has employed very few people from the community. Those who have been displaced from the land by the company's activity far outnumber those gainfully employed. So this is very negative (Community C resident)

During the pre-mining days when the mine was not around, at least every youth was working. He/she was either doing farming or small-scale mining. Today farming has gone down because of scarcity of land. Small-scale mine has also collapsed because of the mine. Meanwhile, the company has employed few people and majority of the youth are now idling in the house than before the mine. You know, not all areas in the company's concession are okay for large-scale mining but the company will not give this portion to the small-scale miners to operate. So in the area of employment, they have brought a great disservice to the community, so I will go for –5.... (Community C resident).

Residents believed that insofar as the number of community members the companies have displaced from the land far outweighs the number directly employed, residents considered the companies' impacts on local employment negative.

Residents also thought that the companies' impact on employment was negative because although the companies paid compensation for farmers whose farms were affected, the farmer's future livelihood and quality of life depends on successful management of compensation moneys:

I see it [employment] as negative because the company has employed few people, and many farmers have lost their farms. Though the farmers were compensated, if they could not manage the compensation (which they do not have the expertise to do so) to keep them at welfare levels prior to the severance of their resources, they would become useless and poor in the community.... Yes, poor because they would no more have their assets [land and farms], which had been involuntarily ceded to the company. This is why I see it as negative (Community B resident).

Residents also revealed that a high proportion of those who have secured employment with the companies were on 'casual' status:

They [the company] employ people from outside the community at the expense of our children. We have spoken against the company's action for the past 10 years but still nothing has been done about it. They do not care about our concern.... For those who have managed to secure jobs with the company, most of them are casual employees, which disqualify them from enjoying certain benefits that are normally given to permanent employees.... What is even more annoying is that when the company disengages the services of community members (for no reasons), the company does not replace the laid off employees with people from our community. They look elsewhere for replacement.... (Community C opinion leader).

Residents also thought the companies marginalized community members in favour of urban workers using education and skill as excuses. Residents stated that the companies should employ community members whether or not they qualify, and provide on-the-job training to those employed. Residents also believed the companies accepted bribes before offering employment. They thought payment of bribes disfavoured the

communities because of their low income relative to urban workers whom communities thought have money to bribe company managers:

> ... it is not always true that our people are not qualified because they lack education and skill. We have people in the community who have requisite education and skill to work in the mine, yet the company continues to marginalize them, you see. So its all bounces back to what I was saying – bribery. We do not have large sums of money to bribe them. So it is not a matter of education. They knew we do not have education, yet they promised employment when they wanted us to support them at the initial stage.... (Community C resident).

In summary, there was high community distrust and dissatisfaction of companies' employment procedures. Residents also believed companies were inconsiderate to their demands and grievances, particularly for employment and development. The analysis shows that community dissatisfaction arises from communities' high initial expectation for employment and community development (fuelled by perceived corporate promises) versus the outcome. Nonetheless, all respondents admitted that the employment of the few community members has had a positive trickle-down effect on the local economy.

4.3.2. Socio-Cultural Impacts

I also analyzed socio-cultural impacts of companies using seven socio-cultural indicators (see Chapter Three). A graphical summary of the net socio-cultural impacts is shown in Figure 4.2 below (see also *Appendix C, Tables C-11 to C-14* for residents' evaluation of socio-cultural impacts). All three communities had relatively similar overall ratings for each category, except companies' impacts on culture (see Figure 4.2). Education, housing, health and population impacts were positive; while land, security/crime and cultural impacts were generally negative.

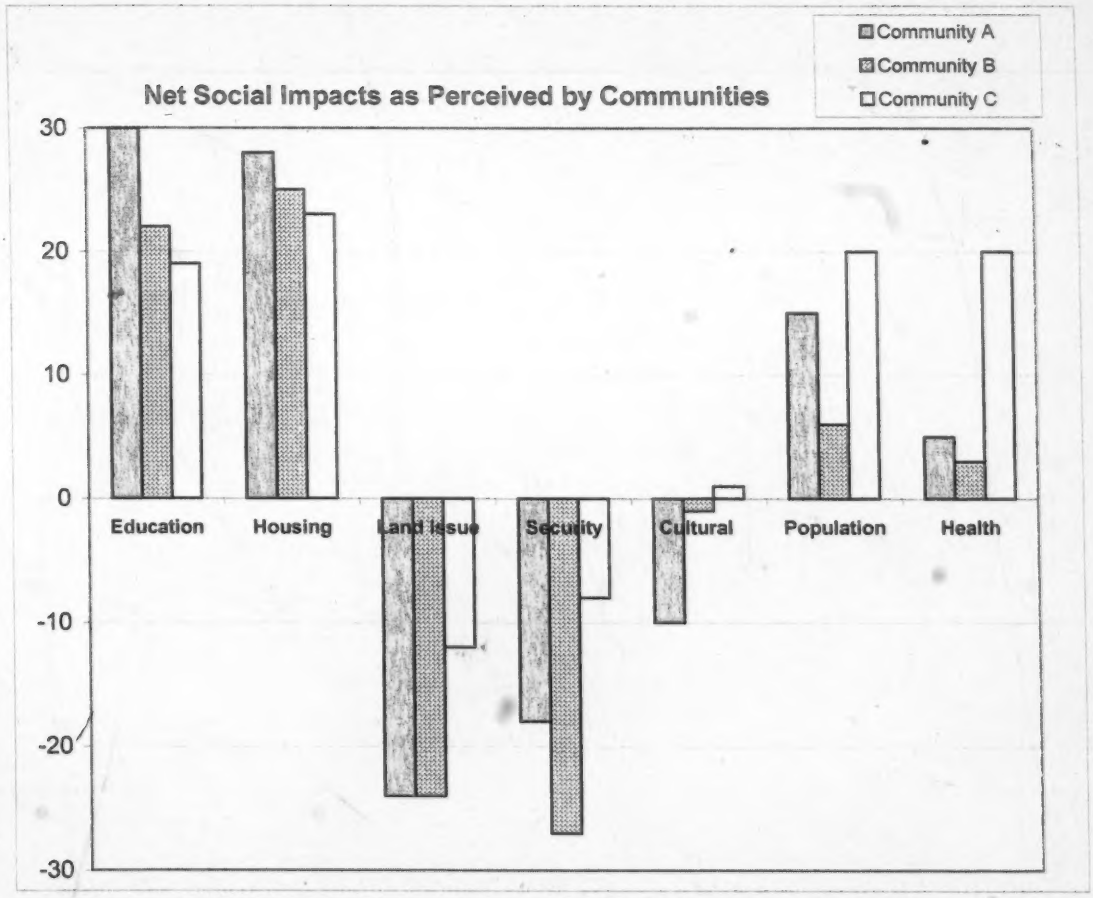

Figure 4.2. Communities' Perceived Net Socio-Cultural Impacts of Mining

As with economic impacts, I will focus analysis on education (very positive) and land issue (very negative) as the two main socio-cultural impacts because the two themes had the largest number of mentions in the interviews and also represented a large amount of text in the interviews.

4.3.2.1 Socio-Cultural Impacts: Education

Perceived effects of the mines on education in the three communities were generally very positive. Twenty of 21 respondents perceived a positive impact while one respondent thought the impact on education was neutral (*see Appendix C, Table C-14).* The 20 residents perceived a remarkable post-mining improvement in both the quality of teaching and learning and the number of school enrollments. Residents admitted the mines have been very supportive in building schools, supplying books, transporting

students, and providing financial assistance to teachers. Eighteen of the 20 respondents thought enrollments had gone up because education has become a prerequisite for employment in the mines, while three believed it was due to the government policy of Free Compulsory Universal Basic Education (FCUBE):

> Before the mine, the level of awareness of education... was very low because of low educational facilities in the community. People were attending classes under trees and mud structures, sometimes without roofing materials. The quality of teaching and learning was very low.... After the establishment of the mine, however, the company has put up a modern school facility for the community.... Teachers are also being motivated in terms of salary supplement and provision of housing. The company also transports the children to and from school everyday from the nearby communities (Community A opinion leader).

> ...so compared with today, education in the community is better than before. People have also seen the need to educate their children than before. For instance, previously if a person has 10 children, s/he would only educate 2 of them and use the rest as farm hands. Also because of lack of amenities at the pre-mining time, teachers were reluctant to accept postings into the community. With the provision of electricity and other amenities by the company, teachers now accept postings to teach in the community (Community C opinion leader).

Residents believed that the companies' employment requirements, such as education and skill, facilitated community awareness in education:

> Before the mine, educational awareness was very low and so was the enrolment. The presence of the mine has improved education in our community. For instance the school in-take has increased by 50%. The enhanced educational awareness and school in-take are due to the fact that educational qualification has become a pre-requisite to gaining employment in the mine. This has prompted parents to be very pro-active towards educating their children so that the children could also gain employment in the mine (Community B opinion leader).

Residents believed the improvement in education is important for the future development of their communities.

4.3.2.2. Socio-Cultural Impacts: Land Issue

Perceived effects of the mines on land tenure in the three communities were generally very negative. Nineteen of 21 respondents, particularly in Communities A and B, perceived a very negative impact on land, while two respondents thought the companies' impacts on land were neutral (*see Appendix C, Table C-14)*. It must be emphasized that residents in Community C acknowledged Company C replaced all community lands the company acquired for mining, but in a relatively farther location, making accessibility extremely difficult for elderly farmers. There was no land replacement for Community A and B. Nonetheless, residents in Community C strongly

shared the opinions of Communities A and B that companies' impact on land was negative.

The 19 respondents believed the companies have destroyed their farmlands on which their lives depend. Residents stated that the surface activities of the companies conflicted with their farming activity and other traditional livelihoods, such as hunting. Residents revealed that land destruction by companies has led to land scarcity and increased prices of land in the communities which, before the mine, was almost priceless. Residents stated that surface activity of companies was not healthy for the future sustenance of communities:

> This company extracts the metal gold from the surface of the earth thus depriving other land-users from gaining access to the land for other land-based activities. This is why people speak against their operation. It would have been nice if the company operated underground. Underground is better because it does not conflict with surface activity such as farming, hunting etc. (Community B opinion leader).

Residents also revealed that the national government did not involve them in the initial negotiation with companies for the leasing of community lands for mining. Residents said the only stage the government consulted communities about the mines was during the public hearing. They believed at the public hearing stage, the government had already approved of the mines, and no amount of community concerns could make government reverse its decision. Residents believed the exclusion prevents communities from exercising their right to accept or reject project proposals on community land. Residents perceived national benefits from mining over-shadow community concerns:

> You see, our lives depend on the land and it is our future wealth just like any other asset. It is not good for government who stays far from us to decide and release our asset to the company without involving us in the decision-making at the initial stage.... Just answer me this question, when the mine closes today who would bear the suffering? Is it the government or the community?... In fact this is unfair (Community B opinion leader).

> ...the company is destroying the surface of the land and come one day, our children would find it extremely difficult to get land for farming. You see, when government urges you to move to make way for the company's operation, who are you to defy the orders? Companies usually come here with their maps saying government has leased the land to them... You know, when government speaks, no one challenges. Perhaps if they [government] had involved us [in the negotiation with the company], we would have either agreed or disagreed.... (Community B resident).

Residents also said that they do not trust the companies' programmes to rehabilitate the land, and thought the land, once destroyed, can never be reverted to its original condition

> ...even if the company would reclaim the land at all, I don't think the land could be restored to its original state. So I support that mining should be done underground so that destruction to the surface soil would be curtailed.... Of course we learnt from the EPA [Environmental Protection Agency] personnel that the company will be made to pay reclamation moneys to the government, but we doubt the government would use the money to rehabilitate the land in case the company runs away.... Oh! the government could use the money for something else as long as community members are not signatory to this agreement, and when the country is in need of money for roads and other projects elsewhere.... (Community B resident).

On the other hand the two residents who perceived a neutral impact argued that only a small section of community land had been leased for mining. The two argued there is opportunity cost in every development activity, and that the community and the nation as a whole ought to lose land in order to attain development:

> There is a trade-off in every development activity. As already explained, the mine has brought some form of development to the community, and so something unhealthy could result out of this development. You see, their operation has led to scarcity of land in the community, but without this sacrifice, the community could not witness any development, as we have seen today. I do not think the mining companies in Ghana together operate on 10% of the country's land surface, but they contribute to the entire nation's development, so we must lose something to gain something..." (Community C resident).

In conclusion, land alienation due to surface activity of companies was a major concern for the communities. Residents thought the national government sidelined them in the initial discussion with companies about leasing community land for mining. They also expressed doubt about the companies' rehabilitation programmes. Residents thought since communities were not privy to the companies' reclamation bond, the national government could divert the money in times of financial crises. Residents generally conveyed that they wanted a participatory democracy over the leasing of community land for mining, rather than a representative democracy adopted by the national and the district governments.

4.3.3. Environmental Impacts

As with economic and socio-cultural impacts, I also analyzed environmental impacts of companies using six environmental elements, (see Figure 4.3) for a graphical summary.

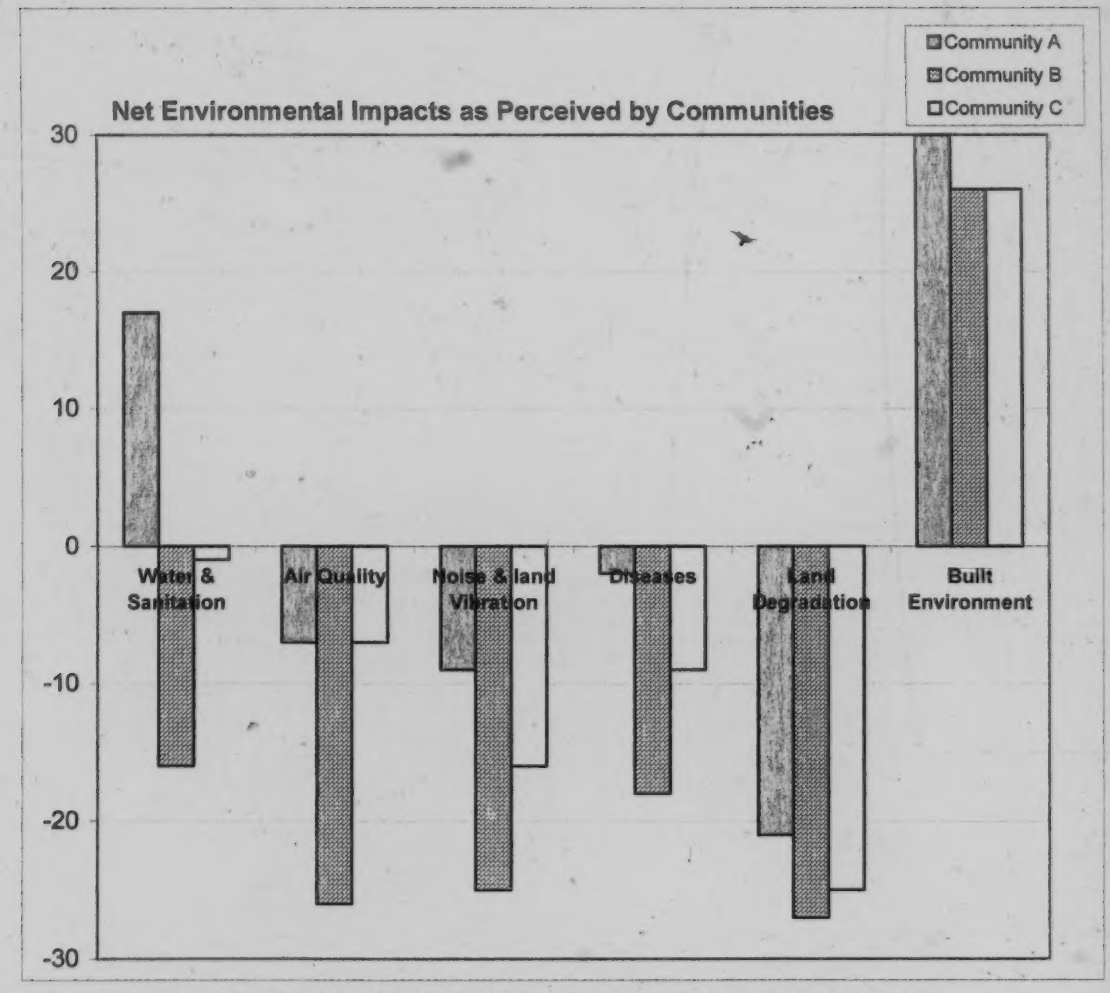

Figure 4.3 Communities' Perceived Net Environmental Impacts of Mining

The communities' general perceptions were that the mines have been detrimental to their pre-mining environmental situation. The only exception is the built environment, which the three communities said improved tremendously. Community A also thought its water situation was better than the pre-mining days. While perceived negative environmental impacts were remarkable in Communities B and C, they were relatively moderate in Community A (see also *Appendix C, Tables C-15, C-16, and C-17* for residents' evaluation of environmental impacts). As with economic and socio-cultural impacts, I will focus on water and sanitation (qualified negative) and built environment (very positive) as the two main environmental impacts because the two themes had the

largest number of mentions as well as represented a large amount of text in the interviews.

4.3.3.1. Environmental Impacts: Water and Sanitation

Perceived effect of companies on water and sanitation was a qualified negative, meaning the three communities recognized improvement in the quality of water and sanitation but perceived that water supply to the communities was inadequate (*see Appendix C, Table C-18)*. While Company A had provided Community A with piped water, Companies B and C provided boreholes fitted with pumps.

Residents at Communities B and C stated that the boreholes were inadequate and yielded insufficient water, particularly during the dry season. Residents asserted that community members had to queue for a long time and were highly indignant that the companies polluted and diverted streams yet failed to replace them with adequate and sustainable water supply:

> ... the company knows the stream is now poisonous for human consumption but adequate water supply has not been provided for the community. The company has provided the community with boreholes but all are not functioning now. We have gone to complain to them to repair for us but all to no avail. I wish you came here during the dry season, the community experiences serious water shortage to the embarrassment of everyone. Indeed, the company has come to create more problems for the community (Community C resident).

> ...the reason for choosing –3 [negative three] is that water supply from our stream was adequate and sustainable during pre-mining days. Today, the boreholes the company provided to replace our stream water is woefully inadequate; this bothers majority of community members. Aside from this, we have also stopped using rain water, which hitherto supplemented our water supply.... It is rumoured that the rain is polluted because of smoke from the debris burnt by the mine and other pollutants like cyanide and dust particulate (Community B Opinion leader).

Residents at Community A, however, were appreciative of the piped water Company A had provided them. Nonetheless, they also complained that water supply to the community was not adequate because the stand-pipes were few and also confined to a particular location in the community.

4.3.3.2. Environmental Impacts: Built Environment

Residents in all three communities reported a very positive impact of companies on communities' built environment. They stated improvement in the quality of houses;

awareness of environmental cleanliness; expansion of community size; planning of community houses, which were formerly arranged haphazardly; construction of proper drains to direct the flow of run-off; and provision of social amenities such as electricity.

Residents in Communities A and C were appreciative of resettlement projects. Residents thought the quality of houses provided by the companies were better than what they had at pre-mining time:

> Housing facilities in the community have been improved. In the olden days [pre-mining time] we were residing in mud structures and sometimes dilapidated houses but now the quality of housing facilities in the community has improved. All the mud houses in the old community have been replaced with block houses roofed with iron sheet. In addition, so many supporting facilities like electricity, water, new schools etc. have also been provided in the new settlement (Community A resident).

Residents in Communities A and C believed provision of improved houses had saved communities from depending on forest products all the time to maintain their houses.

Community B had not been resettled, yet residents stated the presence of Company B had improved the income level of farmers, traders and the youth who worked in the mine. Residents said the relatively high income level of the people made them able to afford quality building materials to improve their houses. Residents also stated that the community had tripled its original size, and community members had understood the need to keep their surroundings clean and tidy.

4.4. Communities' Assessment of Companies

Community A was fairly satisfied with Company A's level of commitment to its expectations, but Communities B and C were highly dissatisfied (*see Appendix C, Table C-20,* for the companies' development assistance to the communities). The following passage demonstrates typical dissatisfied and distrustful responses, particularly from residents of Communities B and C:

> ...in fact aside from compensation and land replacement, Company C has not honoured all other promises and [verbal] agreements to date. The reason is that we did not enter into any written agreement with the company and so there is no evidence to prove that the company actually did make these promises. The company wanted to see evidence of these promises, which we do not have. The company management which gave the promises is no more with the company. I think other communities which are about to host mining companies should learn from our lessons.... (Community C resident).

> ...the company should understand that they came to meet people in this community and so should treat them well. For instance, look at the place they dump their waste material? Just very close to the community. Something the company calls 'waste material', and knows very well that it is not good to come close to people, it has rather dumped them close to the community. This is not good. Also, the community sometimes has to embark on demonstration, sending our buckets to the company premises before it realizes the need to repair our water pumps. You see, so if the company continues to turn deaf ears to our concerns and demands, it would not augur well for a healthy relationship (Community B opinion leader).

Residents believed legal or contractual agreements with the companies would have compelled companies to honour their verbal promises and obligations in the relationship. Residents also thought companies disrespected communities, and were insensitive to communities' demands and concerns.

I asked respondents to compare the negative effects of the mines with the positive effects on their lives and determine whether they welcomed the mines in their communities (Table 4.3; also see Appendix A.1, Question 8). The results indicate that the majority (18 of 21) in the three communities strongly welcomed the mines despite the dominance of perceived negative effects brought up in the interviews. However, the residents justified their strong support for the mines with the following common rationale.

Table 4.3. Community Assessment of Companies

Community	Welcome Companies	Don't Welcome Companies	Total
A	7	0	7
B	5	2	7
C	6	1	7
Total	18	3	21

(Source: Computed from Interview data, May 2001)

At Community A, all respondents said they welcomed Company A in their community because the social benefits from the mine outweighed the social cost:

> Comparing the positive impacts of the mine with the negative, I personally welcome the mine in the community. The reason is that they have provided us with schools, piped-water, electricity etc., so I welcome them. However, I am personally not happy with the way the company marginalizes the youth when it comes to employment (Community A resident).

At Community B, five respondents favoured the mines, while two did not. Those who supported the company's operation did so because they believed that the community

has seen some form of development, and thought the company might assist them in future:

> In spite of our unhappiness about some aspects of the company's operation, my community still welcomes the company. This is because the community is taking consolation from the fact that perhaps in future the Company could assist the community better than what they have done (Community B opinion leader).

However, the two residents in Community B who did not support the mine believed that surface mining threatens community life, especially when the mine closes operation:

> Mining is a robber industry and its activity is also short-lived. The consequences of post-closure of mining operation are always not good for the health, survivability and viability of communities.... For these reasons, I personally do not support the operation of the mine in the community (Community B resident).

At Community C, six respondents said they favoured the operation of the mines, while one person did not. The six residents who welcomed the company said that in spite of all the adverse effects, the company has helped the development of the community. Residents, however, thought the company's assistance was not adequate. Some residents also believed that even though they themselves had not secured employment with Company C, other residents were working in the mine. These respondents felt the high salary of Company C has improved the workers' standard of living. Some also said they welcomed the Company because of the potential for the company to provide promised benefits to the community:

> Well, if they could live up to their initial promises made to the community, then I will welcome them. However, I think we still welcome them in the community for the reason that at least they have helped the community in some ways, and believe if we continue to dialogue, they would live up to their promises. This is why I still welcome them (Community C resident).

In contrast, the one resident who was not in favour of the company's activity in Community C perceived reduced agricultural fertility in the area as a result of chemicals used in mining operations:

> The company has brought problems to our farming work such that I wish they were not with us. Yes, problems such as the effect of their chemicals on farmlands (Community C resident)

In conclusion, these findings confirm that development and employment expectations were the main reasons why communities supported the large-scale mining companies. Residents' support for the mines was not so much because the social benefits

of the mines' activities outweigh the social costs, but they thought the current levels of development in their communities would have been impossible in the absence of the mines. This affirms a distrust in government's commitment to rural development. Only three residents expressed concern about the impact of surface mining on the physical environment. Company A appeared to have the strongest community support, and interviews indicated that Company A has relatively strong commitments to community development (see Appendix C, Table C-20 for the companies' development assistance to the communities). The findings also suggest that the communities do not oppose surface mining. Instead, residents expressed concerns about companies' insensitive behaviour towards communities' demands, grievances, and concerns about negative impacts. Residents believed that a legal relationship with companies could make companies honour promises and meet community obligations. The companies, however, had different views of their relationship with the communities.

4.5. Companies' Response to Community Expectations

Company A began exploration activities in 1989 but started effective operation in 1997. Company B started exploration in 1993 and began effective operation in 1997, and Company C commenced exploration activities in 1983 and was commissioned in 1993. Thus all three mining companies have been in their communities for more than ten years.

4.5.1. Community Development

Generally, the data show that the companies were aware of the communities' high expectations. The companies also had some idea about the nature of communities' expectations. The companies, however, had little knowledge of the rationale behind communities' expectations (*see Appendix C, Table C-4, C-5, and C-6* for each company's responses).

In response to the community expectation that the mines should provide all basic infrastructure and development assistance, the companies argued that they pay royalties to the government, part of which ought to be used to develop the communities. The companies believed they were not in the communities to perform the role of the government, but stated they provided support where necessary:

> ...we should not lose sight of the fact that the community least talks about the good things we provide them. They hardly distinguish between government responsibility and that of the company. Meanwhile, we pay royalties to the government, and part of the money is to be recycled back to the community for their development (Company A senior officer).

The companies thought as long as they pay royalties to the government, any additional assistance to communities was voluntary, and done out of goodwill rather than obligation. They, however, conceded that industry performance is measured not only by earnings but also by sensitivity to communities.

On community assistance funding and income-generating ventures to sustain communities after mine closure, the companies felt that sustaining communities after mine decommissioning is a community and government responsibility. They argued that a company's prime objective was to mine gold and, where possible, provide basic facilities to assist community development. Company respondents thought they had provided required facilities and would continue to do so only as budget allows, and only while still operating. Company respondents thought community demands are sometimes unreasonable:

> We have created the infrastructure such as roads, electricity, water, schools etc. These are areas which provide opportunities for the communities themselves to progress. I don't think it is necessary for the company to establish other economic ventures just because it wants to ensure sustainable mining community. To me, that is not the way to necessarily ensure sustainable mining community (Company A manager).

> We also think we are doing our best. They shouldn't forget about the fact that we have a constrained budget within which we operate. Those demands the company finds reasonable, we help. However, when it is difficult that we cannot help, we agree in principle with the community that we would honour their demands in due course. But almost invariably, community demands are unreasonable (Company B senior officer).

> To be candid with you, my department always has small money allocated to its activities, compared with all other sections of the company.... The number of community demands we receive far outweigh what our budget is capable of meeting. Although community demands on companies are too excessive, the small allocation further makes it difficult for us to honour our voluntary assistance to the community (Community A senior officer).

Company respondents felt that expectations for skill training, community engagement and infrastructure support were somewhat reasonable, but stated communities should acknowledge that the government is responsible for providing infrastructure.

Community residents also wanted companies to force their workers to live in the communities to boost local trade. In response, the companies argued that expanding local

trade was outside the control of companies, and that they have provided roads to open up the area to facilitate trade and commerce. Company respondents also said they could not force their workers to live in the communities but have provided housing for senior mine workers in the communities, who patronized local goods and services. Company B said Community B was unreceptive to company workers, which was why workers did not want to live there.

4.5.2. Employment and Compensation

Companies argued it was impossible to employ every member of the community because of capacity constraints, and also because local labourers lacked sufficient education and skill to work in sophisticated mining industry. While Company A claimed 70% of its junior staff were sourced from the local community, Companies B and C said they did not discriminate in employment:

> Unlike some companies which offer preferences for local people, we do not discriminate on employment. Everyone is a Ghanaian and so request for labour to work with us is sent to the District Labour Office, which provides us with qualified people for interview and hence employment (Company C manager).

In response to community demand for companies to provide on-the-job training for community members, Company A claimed its 40 mill operators were local novices employed and trained on the job. Companies B and C thought the procedure was costly and unnecessary because there was a pool of qualified labourers outside the communities ready to work in the mines.

The communities also expected companies to train the youth in alternative livelihoods so the youth could become self-employed. Company A said it had already experimented with such a project for 50 Community A members; Company B promised to follow the steps of Company A in its future community programmes. Company C did not respond.

On crop compensation, the three companies contended that they paid adequate and realistic compensation negotiated together with communities and government representatives. They believed recipients mismanaged their incomes.

4.5.3. Responsible Corporate Behaviour

Companies also responded to community issues regarding corporate behaviour. First, communities claimed companies did not honour pre-establishment promises. In response, the companies said they had honoured all obligations and that communities' expectations were insatiable. The companies said the communities were never satisfied with company assistance. Respondents thought most community expectations were not corporate promises but communities deliberately alluded to them as promises made by companies.

Communities also expected companies to involve and engage communities in decision-making processes, through the formation of a liaison committee. Companies' respondents dispelled these charges. Company A stated it initially set up a liaison committee mandated to address Community A concerns, but suspended it because community representatives were more interested in the sitting allowances the company paid them than community interests. Company A, however, expressed an interest in reviving this committee. Company B also claimed its community relations officer held regular meetings with the community to address their concerns. Company C said it engaged its communities every quarter, with the meeting held either at the company premises or in the community.

Third, communities also blamed companies and government for not involving communities in the acquisition of community land for mining. In response, the companies asserted the government is responsible because it owns the minerals on behalf of the people of Ghana. The government officials I interviewed also dispelled this charge saying communities were fully informed about proposals to release land for companies:

> When they [mining companies] send their application to the Minerals Commission for license we send it [the application] to the District Assembly which is supposed to be the mouth piece of the community…. Each community has got an Assembly member at the District Assembly and they represent the interest of the community at the Assembly, and therefore since the letters are sent from here to the Assembly, the Assembly member is supposed to inform the people within his/her community about the proposed project. So they are always informed (Senior Monitoring Officer, Ghana Minerals Commission).

Thus the government informed communities through the District Administration and the elected community representatives to the District Legislature.

Fourth, in response to the demand to co-exist with small-scale miners in companies' concessions all three companies provided different responses. Company A said it adopted a policy of "live and let live", and it gave small-scale miners in Community A a portion of company land to operate, but the miners refused to work on that land because they saw it as too distant, and also not as rich in gold as their previous site, on which the company currently operates. Company B thought small-scale mining was not a problem in its area since the activity was almost non-existent. Company C said the request was not feasible because of safety and environmental reasons.

When asked why companies thought communities have high expectations (*see Appendix C, Table C-4, C-5 and C-6*), respondents indicated that communities' high expectations were fuelled mainly by greed and a perception that mining companies were rich:

> ...from the community, their expectations are very high, that is just the way it is. The main underlying reason for their high development expectation is greed. That is, most people want to get some part of the pie for themselves (Company A manager).

> When they are asking for things, I know that they are asking for things because they probably think that we are a gold mining company and so I have got money. Like Oliver Twist, communities always ask for more (Company C manager).

4.6. Company Expectations of Communities

Interestingly, the companies also had expectations of communities. Companies expected communities to stop comparing their pre-mining experiences with the changes after commencement of mining operations, and to embrace modernity and the positive development brought by the mines:

> We think as the community has embraced the company, they should move from their old mentality to a new mentality. That is, they should stop their usual comparison or complaint that they had their stream water and the company has replaced them with boreholes, which are inadequate, and many other things. We think the community should move away from their traditional posture, especially in the use of water, and come to terms with modern system of water supply (Company B senior officer).

Companies also expected communities to be honest about Companies' behaviour with NGOs and researchers, and not perceive companies as exploitative. The companies thought communities unduly made money out of the mines through speculative activity on companies' concessions:

> ...in late 1996/1997, we did a survey and identified the people who were living in the area because we were going to mine in the area. So the company demarcated a safety zone, we paid compensation for farms and villages which would be affected. Within the next 3 to 4 months people started building in this safety zone so that they could get compensation.... It's a problem. I think there is something wrong with the mentality of people about mining and it is not the best way forward. If they do not change from this mentality, at the time that they would have genuine concern, nobody would listen to them (Company C manager).

> I think the communities should also be honest about the NGOs. They should tell the NGOs the true story about their situation and not to tell them what the Organizations want to hear (Company C manager).

Companies also expected communities to appreciate companies' efforts at meeting their social obligations. The company respondents expected that communities co-operate with them by using proper channels to address community grievances, instead of resorting to unnecessary demonstrations:

> On the other side, if the communities are also not co-operative or appreciative of the effort the company is making (in terms of honouring its social obligations), as well as understanding the company's mode and methods of operation, and thus resort to unqualified demonstrations when their grievances are not channeled to appropriate quarters, it creates problem. So there should be a cordial relationship between the two of us. We should understand ourselves... (Company B senior manager)

In conclusion, the companies felt that expectations for skill training, community engagement and infrastructure support were somewhat reasonable, but stated communities should acknowledge that the government is responsible for providing infrastructure. The companies, however, perceived the expectation to employ every member of the community; provide on-the-job training to local workers; establish other economic ventures; view development assistance as an obligation; and establish a post-closure community assistance fund as unreasonable, therefore saw no need to address them. The companies considered development assistance to communities as voluntary because they paid royalties to the government for community development. The companies expected communities to be honest about their relationship with companies and outside agencies such as NGOs and researchers. They also expected communities to change their mentality about mining, co-operate with the companies, and stop unnecessary demonstrations by resorting to proper channels to address community grievances.

4.7. Companies' Response to Perceived Impacts: Overview

In this section, I will present companies' responses to communities' perceived impacts of their operation. For comparison with communities' perceived impacts, I will provide a summary of relevant sections of the companies' pre-mining social and environmental impact assessment studies.

In its socio-environmental impact study on Community A, Company A predicted that the socio-economic impacts of the project would be strongly positive and that the project would have no negative impacts on the lives of the people. It also indicated the people would embrace the project because of the potential for employment and community development (Company A EIS Report, 1996: 4-12).

In contrast, Company B's baseline and environmental impact assessment study predicted both positive and negative impacts, but anticipated the positive would outweigh the negative, partly from community perceptions of the project. Like Company A, Company B also indicated that community support for the project was based on perceived potential for employment and local development (Company B EIS Report, 1997:114).

Like Company B, Company C's impact assessment predicted both positive and negative impacts, but did not identify whether the net impact would be positive or negative. The study, however, emphasized loss of agricultural land, relocation of communities within the mine's footprint, reduced availability of local water supply, and high local inflation due to injection of money into hitherto subsistence economy (Company C EIS Report , 1990:3-4). Thus Companies B and C had more balanced and realistic expectations of impacts than Company A.

In the interviews, company officials responded to a number of community allegations of economic, social and environmental impacts of their mines. (Tables 4.4, 4.5, and 4.6). Generally, the company officials readily acknowledged improvements the communities attributed to them, but rarely admitted perceived negative impacts. The companies also felt concerns about the mines causing pollution were unsubstantiated.

4.7.1. Response to Perceived Economic Impacts

The companies' responses to communities' allegations of economic impacts typically involved dismissing or denying any problems, or shifting blame on communities. Respective corporate responses to these allegations are summarized in . Table 4.4.

Table 4.4. Companies' Responses to Perceived Economic Impacts

Communities' Concerns/ Impacts	Companies' Responses
Marginalized local labourers/ high unemployment	• High unemployment reflects national economic malaise--not caused by companies; • Communities lack sufficient education and skill to work in the mines; • Opinion leaders responsible—did not assist companies in identifying indigenous people; they at times brought their favourites for employment; • Many people claimed to be unemployed but in reality they were not indigenous people.
Delayed payment of farm compensation	• Not all farms surveyed ought to be paid; some lie outside active operation zone; • At times farms survey were done for record purposes but communities did not understand; • We did not want to unnecessarily destroy their livelihoods – we are responsible corporate citizens; • They were right, we at times delayed payment.
Lack of commitment for community development	• We were constrained by budget; • Government also responsible; • Communities should appreciate our efforts—we are doing our best as responsible corporate citizens; • Communities rarely talked about the positive things we do for them.
High cost of living	• Normal with every growing economy— characteristic of every mining town; • Reflects national economic malaise – not due to mining.

(Source: Interviews with Companies, June-July, 2001)

For example, the companies either dismissed communities' negative allegations, or shifted blame to such factors as budget constraints, behaviour of community opinion leaders, or sometimes to macro-scale factors as national economic malaise (see Table 4.4):

> Compared with the past, our impact on cost of living is neutral because higher cost of living today is a national phenomenon; it is not caused by the company. The high cost of living [in the community] is normal with every developing economy. Even if you go to the developed world like USA, Canada, etc., the cost of living is also high (Company B manager).

4.7.2. Response to Perceived Socio-Cultural Impacts

As with economic impacts, the companies also responded to community charges of socio-cultural impacts of their operation. These responses have been summarized in (Table 4.5).

Table 4.5. Companies' Responses to Perceived Socio-Cultural Impacts

Communities' Concerns/ Impacts	Companies' Responses
Destruction/scarcity of farm lands	• No change in land tenure in areas adjacent to the mine's footprint; • Population increase caused pressure on farmlands, not mining; • Mines' land-use is temporary; • We allow people to farm in our concessions provided they seek our authorization; • Every development has a cost—we needed to disturb an area in order to develop; • Primary industry always has to use land; • Surface mining is new in Ghana.
High incidence of crime	• Characteristic of every growing community; External to company control; • Have built police station to check crime;
Cultural disruption	• Culture is not static, it's dynamic; • Tradition in Ghana is changing due to globalization, education and many other factors that have also affected the communities; • Impact on culture positive because people are consuming previously inaccessible goods.

(Source: Interviews with Companies, June-July, 2001)

Like economic impacts, companies also downplayed, dismissed or shifted blame about communities' negative reporting. In some instances, the companies blamed impacts on local population trends and globalizations, or completely downplayed the impacts:

> One of the things that has been going around here has been lack of control of the population in the local community (and it is not associated with the mine). This has resulted in increased pressure on land for farming and there has been extensive deforestation of the land, including part of the forest reserve by the local communities.... (Company A manager).

> Surface mining is new to the country. People will get used to it..., every development has a cost and we have to disturb an area to develop. It is not only in Ghana here, it is all over the world: USA, Australia, Canada etc. The primary industry always have to use the land (Company C manager).

4.7.3. Response to Perceived Environmental Impacts

The companies also responded to communities' environmental complaints. These complaints and their respective corporate responses are summarized in Table 4.6

Table 4.6. Companies' Responses to Perceived Environmental Impacts

Communities' Concerns/ Impacts	Companies' Responses
Acute water shortage/ bad odour in water	• The water is better than before the mine opened; • Communities lack culture of ownership and maintenance—they mismanaged water; • Caused by their irresponsible behaviour; • They have psychological problem changing from old ways to new.
Water pollution/fear of use of rain water	• No pollution coming from the mine site to pollute rainwater; • We have no direct discharge to the environment, except dewatering from the open pit; • We have no charges pending at the EPA—they monitor our activities; • Communities could not substantiate their claims—their allegations were a pack of lies.
Post-closure effects on communities	• We have obligation to rehabilitate the land; • We have paid reclamation bond as surety; • The District Administration responsible for maintaining communities after mine closure.
Polluted air/dust emission	• We operate within internationally acceptable environmental quality standards—Western thresholds; • We submit data to the EPA – our data showed the mine had no effect on air quality; • Desertification in the Sahara Desert also affects air quality –Sahara effect is worse than any local effects; • We constantly water our haul roads to suppress dust;
Proliferation of diseases	• Communities have psychological problem--they ascribed everything that happened in their environment to the companies; • Diseases emerge from many sources, the mines have not brought new diseases—they should instead consider their personal hygiene; • They were all lies, no medical proof.
Deleterious effect of blasting on buildings	• We operate within internationally acceptable thresholds; • Our measurements showed no significant impact on communities; • We operate within EPA regulation.
High and destructive winds	• Communities also responsible—they have chopped off all trees in the buffer zone meant to serve as wind breaks; • High winds are natural hazards – not as a result of mining.

(Source: Interviews with Companies, June-July, 2001)

As with economic and social impacts, there was corporate denial, dismissal, and blame shifting about communities' allegations of environmental impacts of the mines:

> If the rainwater quality is not good, it may not be pinned down on us because we do not contribute to acid rains here. Our operations do not do that. So I think that fear must be dispelled. But if you don't have to use rainwater and you have other form of portable water, what is the problem? You don't have to use if you don't like it. But as far as we are concerned, the company does not contribute to any acid rain pollution in the area (Company A manager)

> "In reaction to the community allegation of serious water shortage…, the problem is that before the company came here, the community was not using this type of water…. The community had only the stream water and pit latrines. The company has provided them with adequate number of boreholes and wells. The issue is about management, irresponsible behaviour. They are not managing the facilities well (Company B manager).

> If I have mined and the effect of my mining has impacted on you negatively, and I need to do certain things about it, it would be done…. But if you tell me we are polluting your stream with chemicals and the chemicals we are using in the mine, we test it in your area and it doesn't exist there, how do you say that we have polluted the stream without doing any test. It's a problem…. (Community C manager).

In conclusion, the responses demonstrate notable differences in community and company perceptions. Communities identified companies as sources of negative impacts. Nevertheless, even though the companies' social and environmental impact assessment studies predicted some of the perceived negative impacts that communities reported, companies either *downplayed, dismissed, denied* or *shifted blame* about these impacts. For instance, in some cases they shifted blame to the communities' behaviour, or to macro-scale processes like the national economy, local population trends, and environmental phenomenon (Sahara Desert effect). In other instances, the companies dismissed or denied these charges using national approved environmental guidelines, legalities or Western standards of environmental quality (ignoring local context). These differing perceptions are sources of contention between communities and companies, especially when communities thought that the companies were not responding to their concerns and grievances.

4.8. Sources of Company/Community Contention

In the study area, there had been a series of violent demonstrations and clashes between communities and the mining companies (see Chapter Two). These conflicts resulted in the destruction of company properties and mass arrest of community

members, particularly the perpetrators. A resident in Community A described the situation:

> We use conflict as indispensable weapon to make government and concerned organizations listen to the voice of we the under privileged people living in mining communities, so they could put pressure on the company to help our community. We also use conflict to make the company act swiftly towards solving our problems and concerns. You see, the company sometimes pays no attention to our grievances, or where they do, responses are usually negative.... (Community A resident).

The companies, on the other hand, called the demonstrations unjustifiable and unnecessary:

> With community demonstration, yes, there have been rampant demonstrations in the area without any justification. I am saying this because you can't just stand up and demonstrate without first presenting your grievances to the company for redress. If that is done and the company failed to address their grievances, then they have right to embark on a demonstration, but this is not the case with the community.... (Company B senior officer).

> ...sometimes the communities also think that is the tool for getting companies to give in. It is a real thing because sometimes they sit down and say, hey, as for the company you have to push them to the wall, once you do that you are really going to get whatever you wanted. So it is a trick that the communities use (Community A manager).

These responses highlight differences between how the residents and companies view their communication and means for addressing community concerns.

In my interviews, I identified three main sources of company/community contention. These were employment, compensation, and small-scale mining (*galamsey)* (*see Appendix C, Table C*-21 for other sources). The major sources of company/community contention were identified based on the number of times the identified sources have ignited company/community conflict, as reported by companies and communities.

Employment emerged as the major source of company/community contention. To the communities, this conflict arose when companies employed "outsiders" at the expense of local labour. This misunderstanding has led to conflict, with the aggrieved members in the community mobilizing forces to confront the company:

> ...there are, as I mentioned, a section of the youth whose expectations have not been met because they haven't gotten the jobs that they probably expected. That has occasionally brought some confrontations between the company and the community.... (Company A manager).

Communities' distrust of companies' employment procedures seemed to fuel this confrontation.

Farm compensation constituted the second major source of company/community conflict. According to residents, this conflict arose after the companies destroyed farm crops without paying for them. The destruction came from cutting survey lines, excavations, drilling, and machinery on farms. Residents said sometimes instead of the companies paying for entire farms, they only paid for the number of crops destroyed in the process. Residents perceived that after these disturbances, the farm owner suffered psychologically and lost the drive to continue farming. Residents expected the companies to compensate the entire farm so the farmer could move to another area. When this expectation was not met, the affected farmers came together to register their displeasure to the companies either by violent or peaceful means. Residents also said delay in compensation payment led to conflict.

The companies acknowledged this type of conflict. Company respondents contended that if the companies do not intend to operate where they have cut a line or excavated, the company feels the farmer should continue his/her activity rather than be relocated and compensated. Companies A and B cited cases where farmers pressured companies to pay for farms the farmers claimed the companies had destroyed, only to see those farmers working on the same farms for which companies compensated.

Conflict due to *galamsey* activity, according to residents, arises when companies make economic finds on mining sites operated by small-scale miners, and the companies ask miners to vacate the sites for the companies' operation. Residents stated that when companies are reluctant to give a portion of their concession to small-scale miners, it sparks conflict because small miners use illegal means (such as unauthorized working in company concession, pilfering ore from company pits) to make their living. This situation has culminated in clashes with companies' security. While the companies acknowledged this conflict, Company A stated that it has adopted a policy of "live and let live" to accommodate small-scale miners, but the small miners refused to work on the land allocated to them because of complaints about long distance from their settlement. Companies B and C said for safety and environmental reasons, they cannot operate in the same concession with small-scale miners.

In summary, perceived marginalization of local labour, delayed and inadequate crop compensation, and alienation of small-scale miners from their operation sites have, one way or the other, resulted in company/community conflict. Interestingly, residents revealed that most of these conflicts occurred at the time physical scientists in the companies (i.e. geologists) were managing community relations issues. Residents perceived the conflicts decreased after the companies employed trained personnel to manage the communities' concerns.

In conclusion, my results show that employment and development assistance were communities' high priority from mining projects. The communities cited perceived negative impacts, benefits distribution, and corporate responsibility as rationale for their high expectations. Land issues, water shortages, compensation issues and marginalization of local labour were the communities' major concerns from mining. The communities mostly blamed the companies for these negative impacts. The companies downplayed, dismissed, denied and shifted blame about communities' perceived negative impacts. The companies also described communities' high expectations as based on greed and the perception that the companies are rich. These differing perceptions have ignited company/community conflict. In spite of these conflicts, the study showed that the communities welcomed the presence of the mines in their communities because of some development projects they had received from the companies and the potential for future benefits. The findings also suggest that the communities do not oppose surface mining per se. Residents' support for the mines was not so much because the social benefits of the mines' activities outweigh the social costs, but they thought the current levels of development in their communities would have been impossible in the absence of the mines. This affirms a distrust in government's commitment to rural development. Nonetheless, the communities were highly dissatisfied about the companies' insensitivity to their grievances and concerns about negative impacts, and about their employment procedure.

Chapter Five

Discussion

This discussion of study results is situated within the context of the roles and expectations of the actors in mineral development, followed by a discussion of power inequity between communities and government on the one hand, and companies and communities on the other, and how communities resist this power imbalance. Finally, I discuss the concept of trust and how (dis)trust and power inequity structure the relationship between the companies and the communities. The section concludes with a summary of sources of poor company/community relationships.

5.1. Roles and Expectations of Development

This section discusses the expectations of communities, companies and government towards development projects. I will first discuss the communities' expectations of development projects within the relevant literature. I will follow this with discussion about companies' roles and expectations of development process. Finally, I will present the roles and expectations of government in development projects.

5.1.1. Community Roles and Expectations of Development.

In my interviews I observed that communities had very high expectations of companies for community development, employment, and payment of realistic crop compensation. Communities also expected companies to respect and engage communities in the mines' decision-making process (see Chapter Four for communities' specific expectations). Four major rationale underscore communities' high expectations. First, residents thought communities bear the negative impacts of the mines' operation, and so ought to be compensated by companies. Second, residents also believed communities provided the mineral resources to sustain the companies' operation, and so were entitled to the share of the mining benefits. Third, communities perceived that most corporations consider community development a corporate social responsibility, and so the companies should regard community expectations within that context. Finally, residents also thought neglect by the central and district governments to develop rural communities make communities look up to the companies as surrogate government to meet their basic necessities. Other studies have found similar community expectations of mining (see

Downing et al., 2002; Veiga et al., 2001; Suorineni and Suglo, 2000; Thomson and Joyce, 2000; Salami and Tsekpor, 2000; McMahon and Strongman, 1999; Aidan, 1999; Suglo, 1999; Aubynn, E.A, 1998a; Epps, 1997; Boateng, 1997; Aubynn A.K, 1997).

The communities' expectations of employment and development towards the mining companies contrast with resource development expectations of communities in developed countries, such as Canada (Luginaah et al., 2002; Ali, 1997). Luginaah et al. (2002) noted that concerns for health and environmental quality outweigh community development from Petroleum Refinery project in Canada's Oakville community. In other words, economic arguments play a stronger role in resource development in developing countries than environmental arguments.

A number of reasons may have accounted for communities' development and employment expectations of companies. First, the poor pre-mining socio-economic conditions of the communities may have compelled communities to perceive companies as surrogate government (Downing et al, 2002; Veiga et al., 2001; Akabzaa and Darimani, 2001; Humphreys, 2000; Salami and Tsekpor, 2000; Aidan, 1999; McMahon and Strongman, 1999). Thus the communities may have expected the companies to perform roles expected of governments, such as social provisions and employment.

Second, communities expectations may have been due to lifestyle differentials between the 'haves' (companies and their employees) and 'have nots' (community members). The demonstrable wealth exhibited by companies and their employees may have bred jealousy and disaffection among community members, who might have felt cheated by companies in the distribution of mining benefits (Veiga et al., 2001; McShane and Danielson, 2001; Thomson and Joyce, 2000; Salami and Tsekpor, 2000; Aubynn A.K., 1997). In peasant communities where competition with, and suspicion in others are fundamental features (Govier, 1997), one person's wealth or gains is assumed to be another person's losses. Thus to ensure equitable distribution of wealth and benefits, communities made demands on companies for employment and social provisions.

Third, the communities lacked physical manifestation of royalties the companies pay to the central government, part of which were meant for community development. According to residents, the district and the central governments have failed to translate royalty benefits from companies into community development:

> It is because of development expectations that is why we allowed the mine to operate on our land. So I do not support the current procedure of paying the royalty through the central government. ...the money should be paid directly to the community rather than paying to the government to use it to develop other places.... For instance, during previous government administration, most of the royalties paid to them by the company never got to the community (Community A resident).

This perception may have fuelled communities' high demands on companies for development projects. Studies have shown that governments in developing economies appropriate virtually all the rent from mining and devoting little to the communities where the mining has taken place (Anaman, 2002; Kampfner, 2001; Akabzaa and Darimani, 2001; Humphreys, 2000; McMahon and Strongman, 1999; Aidan, 1999; Aubynn E.A, 1998a).

Fourth, communities may also have perceived mining activity as a one time-only venture with a relatively short lifespan. This may have put considerable pressure on community leaders to extract more benefits from companies before they shut down (Veiga et al., 2001; Salami and Tsekpor, 2000; McMahon and Strongman, 1999; Madeley, 1999; Aubynn A.K., 1997; Boateng, 1997). This scenario occurred in Community B, where residents had distooled (overthrown) their local chief for not being able to make Company B develop the community. Many residents at Community A also blamed their opinion leaders for not doing enough to make Company A honour some of its promises:

> Though they have assisted us in some way, there are many other things they have not done for us. I do not blame the company. I blame our opinion leaders because they do not force the company to honour their obligations. I was expecting the mine to give us hospital but this has not materialized (Community A resident).

Fifth, the impacts of globalization, information technology, media proliferation, education, community activism, social movements, and communities' own past experiences with project developers, may also have shaped communities' perceptions of what constitutes acceptable expectations from development projects (Aidan, 1999; Madeley, 1999).

Finally, communities' high expectations may also have been due to companies' resource development promises, which were made to communities to entice them into supporting project development (Downing et al., 2002; Kuyek, 2002; Sumi and Thomsen,

2001; Thomson and Joyce, 2000; Akabzaa and Darimani, 2001; Madeley, 1999; Macfarlane and Akabzaa, 1999).

5.1.1.1. Realistic Versus Unrealistic Expectations.

While the companies perceived some community expectations as *realistic* within the companies' social development programmes, other expectations were regarded as *unrealistic*, and companies saw no obligation to address them (see Chapter Four). In the absence of any legal specificity of companies' obligation to community development in Ghana (as exists in physical environmental rehabilitation), the decision about whether or not community expectations are reasonable is based on companies' value judgement. Companies' decisions about whether or not they can afford to meet community demands are made within the constraints of corporate budgetary allocation to social development programmes, companies' commitment to corporate social responsibility philosophy, and market ideology. Nonetheless, some community expectations, particularly employment for all local labour, are unrealistic.

Three main reasons may have accounted for the communities' unrealistic demands on companies. These are communities' *clientelistic* relationships with companies, the central and district governments' neglect of rural development, and governments' ineffective facilitation of company/community interaction in Ghana.

In the interviews, residents wanted companies to employ almost all the youth in the communities. Residents hardly understood the companies' explanation that community members were less qualified to work in the mines. Govier's (1997) *clientelism* explained that in *patron-client relationships*, the patron (company) is constrained by its relationship with the client (community) to apply a universally acceptable standard for recruiting people for jobs. *Clientelism* rejects the use of universal standards (such as education and skill) in employment, in favour of friendship (i.e. 'employ me even if I do not qualify because I am your friend'). This perhaps contributes to why residents wanted companies to employ every community member although most community members did not meet the universally acceptable requirements for the job. Since confidence in *clientelistic* relationships is contingent upon economic privileges the patron creates for the client (Govier, 1997), companies should, perhaps, find alternative ways of meeting communities' economic demands if companies want to build confidence

in communities. The World Bank conference in Quito recommended that mining companies provide other forms of compensation, such as provision of local infrastructure, skill development training, and alternative income generating ventures for their local communities to offset job losses and high expectations due to surface mining (Thomson and Joyce, 2000; McMahon and Strongman, 1999). While Company A has provided skill training for 50 Community A members, Company B and C have not. Also, none of the three companies have established income-generating ventures in their communities. The companies have, however, provided different levels of basic infrastructure for their communities (*see Appendix C, Table C-20).*

Government neglect of rural development may have made communities embrace the companies with the hope that the projects would bring development and employment. The communities may have seen the companies' operations as a 'miracle' from God, who wanted to bless the communities with development:

> We expected that there would be jobs and development in the community so everyone would enjoy. In fact it was for these reasons we welcomed the mine. This is because the government was not developing our community, and some people in the area were also unemployed. Thus if God has helped the community to benefit from mining project, we embraced it with all happiness… (Community B resident).

In peasant communities (like my study communities), individuals and groups do not see themselves as potential agents for social development (Govier, 1997). The duty for development is assigned to an alien agency, such as government. Since history has given peasant communities many reasons to distrust government's commitment to rural development, the presence of the companies in the communities became synonymous with community development and employment. This perception and distrust in government may have made communities to perceive companies as surrogate government. Communities therefore expected companies to meet all their developmental and employment needs. Studies have shown that in communities with no history of large-scale mining, residents tend to embrace mining activity, hoping that the community might in future benefit from job creation and local development (Downing et al., 2002; Veiga et al, 2001; Sumi and Thomsen, 2001; Humphreys, 2000; Thomson and Joyce, 2000.). Govier (1997:147) also stated that *clientelistic* relationships thrive in societies "where formal norms regulating bureaucracy tend to be weak,… offering some protection to

weaker members of society". Thus government neglect of rural societies may have compelled communities to seek refuge in mining companies, thus making unrealistic development and employment demands on them.

The central and district governments' ineffective facilitation of company/ community interactions may also have accounted for communities' unrealistic expectations of companies. For instance, both the central and the district governments failed to educate communities about their rights in mining activity (i.e. what they can and cannot ask from companies) during the consultation process. The governments' inaction may have provided some latitude to the communities to make limitless demands on companies. In my interview with the Ghana Minerals Commission, I asked the Commission whether communities have rights to demand social provisions from companies:

> I would say, seriously speaking, they do not have that right. The mining companies render such services to the communities as goodwill. Because in any case they pay royalties which, *technically speaking*, are recycled for community development. So actually the communities do not have any business telling the companies we need this or that kind of development projects. (The Principal Mining Engineer, Ghana Minerals Commission: emphasis added)

Thus communities needed such education to understand their rights and limitations with mining companies. Communities also needed such education in order to tone down their development optimism from companies. However, given public perception about governments' collaboration with transnational corporations (Madeley, 1999; Aidan, 1999), government education in this regard may not be welcomed by communities unless government builds trust in communities and make effort to develop them. Aidan (1999:14) noted that, "there has been a loss of trust in governments as facilitators of social and economic development, and increased expectations of the role of corporations... in the provision of social infrastructure".

Thus the study concludes that communities' unrealistic demands on companies may have been fuelled by governments' neglect of rural development, governments' ineffective facilitation of company/community interaction, and clientelistic relationships of peasant societies, such as the study communities.

5.1.2. Corporate Roles and Expectation of Development.

The public often expect that when companies move to hitherto unexploited areas to establish projects, the companies should assist the nearby communities in their development efforts (Antwi, 2003; Antwi, 2002; Downing et al., 2002; McShane and Danielson; 2001; Veiga et al., 2001; Akabzaa and Darimani, 2001; Thomson and Joyce, 2000; Salami and Tsekpor, 2000; Macfarlane and Akabzaa, 1999; McMahon and Strongman, 1999; Aidan, 1999; Aubynn E.A 1998a; Brohman, 1996; Kranich and Luloff, 1991). In this study, the companies have provided the communities with some development projects (*see Appendix C, Table C-20*). While communities perceived this assistance to be woefully inadequate and unsatisfactory, the companies thought the assistance was adequate and within companies' social development programmes. The differing perception of companies and communities about development assistance may be due to high community expectations versus outcome, which is determined by companies:

> I think community measurement of acceptability are most of the times far away from the realities, that is, what a mining company are expected to do as a legal right in the communities (Company C Senior Officer).

Whereas communities perceived development assistance and employment from companies as obligation, the companies thought development assistance to communities were voluntary because it is the obligation of the central and the district governments to use part of the royalties to develop communities. The companies asserted they have no legal obligation for community development and that community developments are goodwill gestures from companies. Companies thus regarded communities' expectations outside their social development programmes as unrealistic, and thus dismissed such demands.

Three main reasons may explain why the companies perceived community expectations as excessive: small budgetary allocation for companies' social development programmes (Downing et al., 2002; McMahon and Strongman, 1999; Madeley, 1999); market ideology of most companies (Antwi, 2003; Downing et al., 2002; Prager, 1997; Barber, 1983), and, the companies' lack of commitment to the corporate social responsibility philosophy (Downing et al., 2002; Habirono, 2001; Feeney, 2001, Akabzaa and Darimani, 2001; Macfarlane and Akabzaa, 1999; McMahon and Strongman; Prager, 1997).

Small budgetary allocation for companies' social development programmes may have influenced corporate responses and attitudes towards community demands and expectations:

> We have experienced about three or four demonstrations. The main cause was that the community thought we are not supporting them the way they expected. We also think that we are doing our best. We have been explaining to them that we have a constrained budget within which we operate, but they [the community] do not understand us.... Those demands the company finds reasonable, we help. But those we find unreasonable, we agree in principle to honour them later (Company B senior officer).

> To be candid with you, my department always has small money allocated to its activities, compared with other sections of the company.... The number of community demands we receive far outweigh what our budget is capable of meeting. Although community demands on companies are too excessive, the small allocation further makes it difficult for us to honour our voluntary assistance to the community (Community A senior officer).

The May 1997 World Bank Conference in Quito clearly indicated that community relations sections of mining companies receive much less funding than metallurgy and environmental sections (McMahon and Strongman, 1999). A reason for relatively small budgetary allocation to companies' social programmes might be that most budgets of transnational corporations (such as companies operating in Ghana) are prepared at company headquarters outside the country of operation (Madeley, 1999), with inputs from on-site personnel. The ultimate decision-makers on budgetary allocations to companies, who live outside the operational site, may have limited knowledge about community expectations of companies. Budgetary decision-makers may therefore underestimate the financial requirements needed to manage communities. Small allocation for social programmes may constrain companies' ability to accommodate community demands, thus companies dismiss such demands as unreasonable and unrealistic. Studies have shown that a key challenge facing many mining companies in developing countries is how to manage social and community concerns and expectations. (Antwi, 2002; Veiga et al., 2001; McShane and Danielson, 2001; Ali and Behrendt, 2001; Salami and Tsekpor, 2000; Aidan, 1999; Macfarlane and Akabzaa, 1999).

The market ideology of most corporations (including mining companies) may also have influenced the companies' inability or refusal to accommodate community expectations. Market ideology may have made it difficult for the companies to reconcile profitability with community demands, which are invariably considered by companies as

unproductive. Studies have shown that mining companies have a lifespan determined by deposit size and mining rate, and investors ought to receive adequate return by the time the ore reserves are depleted (Antwi, 2003; Downing et al. 2002; Habirono, 2001). These dynamics, the authors said, have led some mining companies to focus exclusively on capital returns, and therefore ignore community interests, concerns and demands. In my interview with company managers, I asked whether the companies intended to invest in other non-mining ventures in the communities to create jobs:

> Even the coal mining companies which invested in other ventures in the same mining industry are now divesting these ventures and are concentrating on their core business. So why should we invest in other ventures apart from our core businesses of mining. Our aim is not only to mine but also to remain profitable (Company C Manager).

Thus the problem of reconciling profitability with community demands may have encouraged companies to dismiss communities' expectations as unrealistic.

Even though all the companies professed their commitments to corporate social responsibility philosophy, the companies might not be genuinely committed to the concept:

> We are not here because of this community, we are mining company, and we are here because of mining.... You know, it is not our responsibility to sustain the communities. For instance, after the end of the mine, who owns the properties [company's assets]? It is the government. What the company can do is to engage discussion with the government as to how best the economy of the place can be managed; remember we have to honour our reclamation bond, and to remain profitable too.... So I think the sole responsibility is with the government (Company B manager).

> The community has the perception that once we are extracting gold, the company has strong financial base; so they expect to receive every demand made on the company.... The community does not have any sympathy for the company. They have forgotten that the company is a profit-oriented organization who expects returns on capital, and that we are not here only to satisfy community demands (Company A senior officer).

Studies have shown that most corporations (including mining companies) are not genuinely committed to the social responsibility concept because it conflicts with companies' market lenses (Downing et al., 2002; Habirono, 2001; Feeney, 2001; Macfarlane and Akabzaa, 1999; Prager, 1997; Barber, 1983). A survey of 38 major mining companies in the world revealed that only three had committed offices or personnel working on social issues, and none of the companies employed social scientists (Warhurst, 1998; cited in Downing et al. 2002). Perhaps the companies' lack of genuine

commitments to the social responsibility concept may have belittled the need to accommodate communities' demands. However, Company A's relative success in meeting some of Community A's expectations may perhaps be due to the employment of a resident in Community A to head the local affairs section of the company. This was revealed in a background check of company participants during the interview. Barber (1983) noted that companies that genuinely subscribe to the doctrine of corporate social responsibility might invariably have one executive person in the organization who is committed to the social concern and public trust of the firm.

The study thus concludes that low budgetary allocation to the companies' social development programmes, the companies' market lenses, and, perhaps the companies' lack of genuine commitments to the corporate social responsibility concept, may have accounted for the companies' refusal or inability to effectively manage community expectations. The companies' ineffective management of communities' expectations have sometimes created tension and led to company/community conflict.

5.1.3. Government Roles and Expectation of Development

In this study, both communities and companies complained that the central and district governments did not effectively perform their expected roles as facilitators of company/community interaction, and rural community development. Communities identified two failures of district and central governments: first, failure to develop rural communities (traditional responsibility); second, failure to translate the royalties paid by companies into community development (unequal distribution of mining benefits). The companies, on the other hand, confirmed communities' perception about unequal distribution of mining benefits. The companies thought royalty distribution by the central and district governments disfavours mining communities:

> The money we pay to the government chest is being used in other areas. Because apart from development projects the company has provided the community, *nothing* shows that the government is doing something here based on the royalties collected from us (Company B Senior Officer: emphasis in original transcripts).

This is consistent with other studies (see Antwi, 2003; Antwi, 2002; Downing et al. 2002; Anaman, 2002; Akabzaa and Darimani, 2001; Veiga et al., 2001; Humphreys, 2000; Aidan, 1999; Madeley, 1999; McMahon and Strongman, 1999; Aubynn, A.K., 1997).

These authors noted that liberalization and privatization of developing economies have changed the traditional roles of governments towards their citizenry. These have made it difficult to ascertain who is responsible for social and environmental aspects of projects.

Five main factors may explain why the governments (central and districts) have failed to meet the expectations of communities and companies, particularly in translating royalties paid by companies into meaningful community development. These factors are small royalty allocation to communities, lack of a tracking mechanism for royalties paid to local community chiefs, decentralization of political power, small representation of mining communities at the District Legislature, and Ghana's cultural tradition.

First, the percentage of royalty allocation for community development is nearly insignificant. In Ghana, there is a basis for allocating a proportion of royalties for community development (see Chapter Two). Only 2% of royalties paid by the companies to the central government go directly to the communities for development. Thus if there were six communities within the concession of the mine, such communities are entitled to share the 2% allocation for their development. This makes the allocation insignificant to provide any meaningful development projects in the communities (Downing et al., 2001; Akabzaa and Darimani, 2001; Humphreys, 2000; Aidan, 1999; McMahon and Strongman, 1999). Also, residents revealed that the governments had not undertaken any significant development projects in their communities since the inception of mining operations.

Second, the central and district governments have failed to put a transparent tracking mechanism in place for royalties paid to the local chiefs. In light of this, the local chiefs often misapply royalties as personal moneys (Interview with Ghana Minerals Commission, July 2001; Akabzaa and Darimani, 2001). The lack of a tracking mechanism makes it difficult for community members to question their leaders about the royalties. My interview with Community A opinion leaders revealed that royalties paid to the local chiefs are divided into three parts: a third for the chief as personal money, a third for the royal clan or stool, and a third for community development projects. This division further reduces the already small allocation for the communities.

Third, Ghana has a decentralized political system (District Assemblies) created in the mid 1980s. Ghana's 1992 Constitution (article 252) provides for the establishment of

the District Assembly Common Fund (DACF) (Aubynn A.K., 1997). This Fund allows the central government to allocate not less than 5% of the total national revenue in quarterly installments to the districts for administration and development purposes (Aubynn A.K., 1997). My interview with the District Administration participants revealed that revenues from DACF were unreliable because the central government often delayed payment into the Fund. Thus the erratic inflow of government transfers to the district may have compelled the District Administration to use the district's share of royalties for administration instead of development of mining communities.

Fourth, at the District Legislature, where the use of the District's share of royalties (the 6%) is debated, mining communities' representatives to the Legislature may be few, compared with representatives of non-mining communities. Mining communities might therefore not have the needed voice and number to debate in their communities' favour:

> When it [the royalty disbursement] comes to the Assembly level, we debate on it and members would argue that now all the communities are under mining and so all are mining communities, which do suffer the same effects as those closer to the mine. With this argument, members think that if they decided to share the money to the mining communities [the host communities], it would be unfair because the Assembly would not get revenue to do major project for the other communities (Community C opinion leader).

Finally, the cultural tradition in Ghana excludes some host mining communities from benefiting from the 2% royalty paid to communities. This is because the local chiefs of the host communities may be subservient to a higher-status chief (i.e. the traditional custodian of the mining land). The higher-level chief, who may not live in the host community, receives the royalty by virtue of being the traditional owner of the land. In the absence of governments' disbursement procedures of community royalty, the traditional landowner uses his/her discretion to appropriate the royalty. Thus the host community that bears the brunt of the mine's impacts may not benefit from the royalties. In my study, the local chiefs of Communities B and C stated the communities had not received any royalty from the government, nor their 'bosses' (higher-status chiefs) since Companies B and C started operation. The chiefs in the two Communities are subservient to higher-status chiefs in the traditional area.

In conclusion, given the crucial role government plays as regulator and facilitator in the mining industry, action or inaction from it will continue to be crucial for healthy

company/community relations. The study concludes that the governments' ineffective facilitation of company/community interaction, and failure to properly translate royalties into meaningful community development, has compromised the relationship between the companies and their communities. The governments' failures have compromised company/community relationships in two ways. First, the failures have partly led to heightened community expectations of companies for development and employment. Second, the inactions have also contributed to companies dismissing some community demands as unrealistic. Until government increases the share of royalties to communities and ensures it is properly translated into community development, until companies' community relations budgetary allocations are increased to effectively manage expectations, and, until government becomes more committed to rural development, communities' demands on companies will remain excessive. Companies will continue to regard communities' expectations as unrealistic. This will continue to impede harmonious company/community relationships.

5.2. Dimensions of Power

Two dimensions of power emerged from my analysis of mining company/community relations in the WWD. The first is between the communities and the government in leasing community land to companies for prospecting and mining. I refer to this as governmental power in mining because my study revealed a power concentration in government over communities. The second dimension is between the mining companies and the communities, which occurs during all stages of interaction, from exploration to mining. While communities have resisted corporate power through legal and non-legal means, the study found no community resistance to governmental power in land leasing.

5.2.1. Governmental Power: Leasing Community Land for Mining

Most of the residents I interviewed felt that the government did not consult or involve them when negotiating the leasing of community lands to the mining companies. The only time communities were actually involved in the process was during the public hearing. The communities perceived that they have absolutely no power to reverse government decisions after land has been leased to companies. Residents felt that the

government listened to people's concerns only after the land had been granted to the companies and a public hearing organized to explain how the company would mitigate project impacts. Residents perceived that at the public hearing, no amount of concerns expressed could make the government reverse its decisions, and that they had been rendered powerless by the system. Residents believed their concerns were overshadowed by the macro-economic benefits of the mines to the State. They, however, admitted that their communities welcomed the mines despite concerns about land degradation because the government and the companies promised land rehabilitation, local employment, and local development. Thus, residents on the one hand welcomed mining projects based on promised benefits, yet felt they had no voice in initial decisions about the location and nature of mining operations.

Government participants refuted community perceptions of non-consultation. They said they had consulted all communities within the mines' zones of influence before granting permits:

> Anyone who gives or makes such a statement is a blatant liar… Apart from having consultation with the traditional authorities, we move from hamlet to hamlet, and even in some places the people were taking us to go and show some old work place or adits[1]. They would show the adits together with the local chiefs and everybody. The community themselves would even be very happy that such an operation is coming to their area because at the end of the day everybody is talking about job creation (Principal Mining Engineer, Ghana Minerals Commission).

I realized during the interviews that the government consulted communities about projects through their District Administration, which in turn informed the communities through such media as posting information on the notices board at the District Administration office, post offices, police stations, school buildings, church premises, and chief's palaces in the affected communities:

> When they [mining companies] send their application to the Minerals Commission for license we send it [the application] to the District Assembly which is supposed to be the mouth piece of the community…. Each community has got an Assembly member at the District Assembly and they represent the interest of the community at the Assembly, and therefore since the letters are sent from here to the Assembly, the Assembly member is supposed to inform the people within his/her community about the proposed project. So they are always informed (Senior Monitoring Officer, Ghana Minerals Commission).

[1] Adits are the underground tunnels of old mines.

It appears the government did consult the communities about the proposed project and leasing community land. However, communities were demanding participatory democracy in resource development decisions rather than representative democracy (Antwi, 2002; Kuyek, 2002; Mining and Communities, 2001; Whiteman and Mamen, 2001; Ali and Behrendt, 2001; Abrash, 2001; Suorineni and Suglo; 2000; Aubynn A.K., 1997; Ali, 1997), as was the case with the central government agency involving District Administration units, rather than community members directly. The communities thought their lives depend on the land, and as such government must give communities the right to accept or reject proposed projects (Kuyek, 2002; Downing et al. 2002; Gedicks and Grossman, 2001; Abrash, 2001; Whitman and Mamen, 2001; Thomson and Joyce, 2000).

Though the central government agency consulted the communities, it appears the government failed to directly involve the communities in the initial round table discussion with the mining companies before authorizing exploration on community land. The International Labour Organization's (ILO) International Convention 169 spelt out the rights of indigenous people regarding project development on their land. While the resolution recognizes that governments in mineralized economies may own the minerals resources in the land, the Convention states, among other things, that governments should consult and involve communities before permitting any exploration or exploitation of minerals resources on indigenous land (Thomson and Joyce, 2000). On this basis, the Ghana government thus failed to give the communities the option of whether or not they wanted the project on their land at the initial stage. Consulting the communities after exploration is complete (as in the case of Ghana) is a violation of indigenous people's rights (Downing et al., 2002; Kuyek, 2002; Ali and Behrendt. 2001; Abrash, 2001; Thomson and Joyce, 2000).

The central government's failure to directly involve communities in the initial discussion with the companies for community land may be due to two main reasons. First, the government might fear that involving communities may reduce its powers to implement certain unpopular decisions, such as mining on community land. Studies have shown that while citizens favour participatory democracy and power sharing, their governments feel that sharing power would interfere with speedy and effective social control (Downing et al., 2002; Kuyek, 2002; Whiteman and Mamen, 2001; Ali and

Behrendt, 2001; Suorineni and Suglo, 2000; Madeley, 1999; Barber, 1983). The government thus used its rational-legal authority (Macionis and Gerber, 1999) conferred by Ghana's Constitution (which confers all minerals in the land to the State) to ignore communities' initial inputs.

Second, the complexity of the land tenure system in rural Ghana (where most mineral resources are located) might frustrate investors and thus impede the government's ability to attract more foreign investment. Asumadu (2003) noted that Ghana's land tenure system hinders the country's socio-economic development, and it is outmoded in a modern, progressive country. Therefore to forestall investor frustrations, the government might have ignored the 'informed consent' clause in the ILO resolution 169 to pave way for investment.

Another way to understand why government feels a need to assert its power in ways that do not favour mining communities is Western imperial strategy towards Africa championed by the World Bank and International Monetary Fund, which serve the dominant global powers. Studies have shown that many of the structural problems causing third-world underdevelopment were the direct result of the historical domination of the third-world countries by the capitalist core and its transnational corporations (Asad, 2003b; Cardoso, 2000; Brohman, 1996). There is the widespread perception in the third-world that SAPs and neo-liberalism in general are part of the concerted strategy by the capitalist core to reassert its global domination by perpetuating the underdevelopment of the peripheral states (Asad, 2003b; Cardoso, 2000; Brohman, 1996). SAPs offer loans to the government of Ghana on condition that government drastically increases exports of raw materials (including minerals) to the West, encourage foreign investment and privatize state enterprises. This external pressure may have compelled government to take certain development decisions that are inimical to the interest and welfare of resource communities, including leasing community land for mining. Asad (2003b) noted that the SAPs have caused an estimated 21 million deaths in Africa and have contributed to the transfer of hundreds of billions of dollars to the West.

The study concludes that the government consulted the communities but failed to directly involve them in the initial discussion with companies before authorizing exploration on community land. This constitutes a breach of ILO resolution 169.

Government exclusion of communities might be due to the unpredictable consequence of sharing power with communities, the desire to enhance investment, and Western neo-colonialism. Other studies in Ghana have reported similar findings (see Antwi, 2002; Akabzaa and Darimani, 2001; Suorineni and Suglo, 2000; Suglo, 1999; Aubynn A.K. 1999).

5.2.2 Community Resistance to Governmental Power

Weber (1992) and Macionis and Gerber's (1999) theories of power explain that in situations where power is diffused, the party with more power does not necessarily achieve absolute power over the other. Thus notwithstanding power concentration in governments, the theories reveal that power can be resisted when the disadvantaged in a relationship or society act in concert to confront the powerful control units. In this way the power the responsive units (i.e. communities) have can be realized (Macionis and Gerber, 1999; Madeley, 1999; Lukes, 1992; Weber, 1992; Dahl, 1992).

My interviews with community residents did not reveal any evidence of community resistance to governmental power, though residents expressed dissatisfaction about what they referred to as their "powerless" situation to reverse government decisions about leasing community land for mining purposes. The lack of community resistance to governmental power in Ghana's WWD contrasts with findings of other studies in Papua New Guinea, (Abrash, 2001; Ali and Behrendt; 2001; Zedick and Grossman, 2001; McMahon and Strongman, 1999; Madeley, 1999); Philippines (Madeley, 1999); Yellowknife (in Canada) (Whiteman and Mamen, 2001); Indonesia (Abrash, 2001; Ali and Behrendt; 2001; McMahon and Strongman, 1999; Madeley, 1999); and Peru (Kuyek, 2002; Veiga et al., 2001; McMahon and Strongman, 1999; Madeley, 1999). In these places, some communities have resisted the State's leasing of indigenous lands for mining, though with little success.

One of the reasons for the communities' non-resistance may be that communities may have felt the government has the Constitutional authority (Macionis and Gerber, 1999) that confers all minerals in the soil to the State:

> ...you see, when government urges you to move to make way for the company's operation, who are you to defy the orders?... You know, when government speaks, no one challenges. Perhaps if they [government] had involved us [in the negotiation with the company], we would have either agreed or disagreed.... (Community B resident).

Residents may have thought since Ghana's Constitution entrusts the minerals in Ghana's soil to the state, communities do not have the rights to express their discontent against the government's decision.

A second possible explanation is that the projects are the first major foreign-investment mining projects in the communities. With no history of large-scale mining, the communities may have embraced the projects with the hope that they would bring employment and development to the communities. Thomson and Joyce (2000:4) noted that, "the response of a community to what appears to be a powerful mining interest will be conditioned by past experiences and the extent to which they feel threatened by what they believe to be the impacts of future mining activity". In communities with no history of large-scale mining, residents may be passive towards exploration activities on their land, hoping that the community might in future benefit from job creation or local development (Downing et al., 2002; Thomson and Joyce, 2000; Boateng, 1997). This is in contrast with community resistance in Yellowknife and Panama (Whiteman and Mamen, 2001), Indonesia (Madeley, 1999), Papua New Guinea (Corpuz and Kennedy, 2001; Zedicks and Grossman, 2001), and Peru (Madeley, 1999; Thomson and Joyce, 2000), where communities have long history of large-scale foreign mining investments

Thirdly, the communities may have been convinced about the employment and development promises of the companies. These may have nullified any attempt to resist the presence of the companies on community lands:

> … secondly, they have come to deprive us from the land without any compensation. We never complained about this unfair treatment because they [company] promised to assist us in our development efforts (Community A resident).

Studies have shown that communities that are convinced of the benefits of mining to their localities are likely to be supportive of the project (Downing et al. 2002; Veiga et al., 2001; Sumi and Thomsen, 2001; McAllister and Milioli, 2001; Humphreys, 2000; Macfarlane and Akabzaa, 1999; McMahon and Strongman, 1999). Perhaps with the long history of mining at Yellowknife, Indonesia and Peru, communities might have learnt from the past failed promises of companies and so may resist project proposals.

Finally, community activism, such as mining NGOs, which usually sensitize and educate communities about their civil and constitutional rights in mining, did not exist in

the communities at the time of exploration. This was revealed by community opinion leaders during the interviews. In the absence of such local activism and awareness, communities may not have considered resistance a solution to their dissatisfaction against government's exclusion. Aidan (1999) noted that relationships between mining corporations and NGOs have been in most part adversarial. Given NGOs' past acrimonious relationships with mining companies, their presence in the communities during exploration could have fuelled community resistance. Nonetheless, community activism emerged after the establishment of the mines. The three communities now affiliate with a recently formed local mining NGO, Wassa Association of Communities Affected by Mining (WACAM).

The study concludes that despite their dissatisfaction, communities at WWD did not resist government exclusion of communities in the leasing of community land for mining. This finding contrasts other studies in Indonesia, Papua New Guinea, Yellowknife, Panama and Peru (Whiteman and Mamen, 2001; Abrash, 2001; Corpuz and Kennedy, 2001; Zedicks and Grossman, 2001; Madeley, 1999). The reasons for community non-resistance may be due to the government's rational legal-authority over minerals in Ghana's soil, communities' first experience with large scale foreign investment mining, promises from companies, and lack of mining NGOs during the exploration period.

5.2.3. Corporate Power

Corporate power over communities occurred during all stages of interaction, from exploration to mining. This power differential provides a possible explanation for the behaviour of the companies towards the communities. Evidence of power concentration skewed towards the companies includes attention (or lack of it) to community grievances brought to companies for redress, company (dis)respect towards communities, unsatisfactory resettlement projects, non-recognition of small-scale miners, perceived corporate insensitivity to addressing environmental pollution, water shortages and delays of crop compensation. These perceived unacceptable corporate behaviours, according to residents, influence the lives of community members (Dahl, 1992) and thus have led to

company/community conflict. The communities have resisted corporate power through legal and non-legal means (Madeley, 1999; Suglo, 1999; Aubynn A.K., 1997)

The study found that the relationships between the communities and the companies were generally not healthy. The unhealthy relationships, however, were different in each case. Community A had a *fairly good* relationship with Company A, and this stemmed from the fact that Company A, according to residents, had met most of its pre-establishment promises:

> The relationship between the mine and the community was excellent until recently where a conflict erupted between the small-scale miners and the company. This does not make the relationship to be like what it was before. The conflict occurred because some of the youth went to the company's waste dump to pick some waste ore. Some security guards from the company chased them for going to the area, and so this resulted in a demonstration against the mine. The youth burnt one of the company's vehicles and as a result some were arrested and sent to Police Station (Company A resident).

Community B had a *bad* relationship with Company B, partly because the company was perceived to be insensitive to community demands and negative reporting. Community C's relationship with Company C, however, was *worse* because the residents believed the company was highly insensitive to community welfare and also has not met its pre-establishment promises. The assessment of communities' relationships with the companies was based on residents' responses to questions about community/company co-existence (*see Appendix A.1, Section G* for the questions). The companies, however, thought their relationships with the communities were good and cordial:

> I will say the community has a very good impression about the company, Because we have ourselves conducted a survey and the results suggested that they are generally impressed about the company, about the contributions it has made so far. You would also have people, particularly those who haven't gotten jobs from the company feeling a bit embittered and disappointed. But on the whole, I think there is a rather positive impression by the community of the company (Community A manager)

> From our point of view, I would say the relationship is good. There are no tensions between us.... We have open door policy, if they have problems, they should come, if we also have problems, we go there. So personally I think we have good relationship with the communities. Some organization, like WACAM [a mining NGO], may think otherwise.

Despite the differences in relationships, residents in all the three communities perceived the companies were insensitive to the communities' environmental, water, employment, *galamsey,* and compensation complaints. Residents said the communities

sometimes have to embark on a demonstration against the companies' insensitivity before the companies address their grievances:

> The relationship between the company and the community is not all that good.... Sometimes the community has to demonstrate against the company to force them into doing something for the community. For instance in the payment of farms compensation, farmers have to demonstrate to force the company into making payments.... Whenever the borehole malfunctions, the community has to send our buckets to the company premises before they realize the need to repair the water system (Community B resident).

> Look, the waste oxide material from the mine is very close to our farms so when it rains the material washes into our farms, making the farms to be covered with mud. This affects our crops. We have approached the company several times with these complaints and they promised to go with us to survey the farms and pay compensation. Up till now, the company has neither come to survey the farms nor pay any compensation for the affected farms... (Community B resident)

> They [the company] employ people from outside the community at the expense of our children. We have complained about the company's action for the past 10 years but still nothing has been done about it. They do not care about our concern.... (Community C opinion leader).

The study found that companies particularly used *dismissive*, *denial*, and *blame shifting* tactics to address communities' grievances and concerns brought before them (see Chapter Four, Table 4.4, 4.5, and 4.6). The companies blamed communities' socio-environmental complaints on the communities' own behaviour (such as lack of personal hygiene; mismanagement of facilities, including water); natural environmental trends; and, macro-scale processes (such as national economic malaise and population trends). The companies also dismissed and denied some of the communities' claims (such as perceived water pollution, perceived effects of blasting on buildings, perceived effect of chemicals on agricultural land, perceived proliferation of diseases, etc.). The companies used government legal operational requirements and international operational standards to back their dismissive responses, ignoring local contexts. Other studies have also revealed similar tactical response to communities' concerns and grievances (see Downing et al., 2002: 27; Quinn and Somers, 2002:1; Klinenberg, 2002:168).

These tactical corporate responses indicate a power inequity skewed towards the companies, which communities have resisted through legal and non-legal means. This resistance has turned hitherto stable communities into relatively unstable ones, thus influencing the behaviour of residents. Dahl (1992) noted that one party (companies) has

power over the other (communities) when a change in the latter's behaviour could wholly or partially be attributed to the former. Thus according to Dahl, the greater the change in behaviour of one party (communities), the greater the power of the other (companies). Thomson and Joyce (2000) noted that one of the fundamental factors that shape company/community relations is the extreme power imbalance that skews companies over communities. Similarly, Madeley (1999) also asserted that Transnational Corporations (TNCs) have used their money, size and power to effectively cause hardships for millions of the poor in developing countries. Although Madeley's (1999) assertion was not investigated here, my study results are consistent with the theory that power is concentrated in mining companies (Ali and Behrendt, 2001; Macionis and Gerber, 1999; Weber's 1992).

One way to understand why mining companies feel a need to assert their power in ways that do not favour communities is market ideology (Barber, 1983). Market ideology asserts that corporations lend limited time to engaging with the public because they believe the public has different notions about capitalism from their own. Holders of market ideology believe that engaging those with contrary or opposing views about the market means not listening to them, but telling them what they should think (Barber, 1983). Corporations thus belittle the need to accommodate differences of interests, values and perceptions. Thus the challenge of better financial performance for a gainful future take-over bid may have accounted for the companies tactical responses to community concerns.

Corporate power, unlike that of government, has no legal backing, and so communities have continually resisted mining companies' power through legal and non-legal means. Madeley (1999) observed that "what millions of the poor do have is a sense of solidarity with each other. …there are examples of the poor uniting in efforts to stand up to the power of the TNCs. In this way the power they have can be realized" (Madeley, 1999:7). The following section explains how this resistance occurred in Ghana's Wassa West District.

5.2.4. Community Resistance to Corporate Power

Communities in WWD resist corporate power in legal and non-legal ways. Resistance through the legal process is the adoption of court procedures to seek redress (Corpuz and Kennedy, 2001; Madeley, 1999; Suglo, 1999; Aubynn A.K., 1997). I identified just two cases of legal redress, one at Community A and one at B. In both cases, the participants had taken the company to court to seek better compensation for properties that Companies A and B destroyed in their mining. The litigant in Community A was also seeking a court order to compel the company to replace the number of bedrooms lost in resettlement:

> Personally, I was not happy about the way the company has treated me. I have sent the case to court to seek justice. If justice is denied, I have planned to go to the radio station (FM) to broadcast the dissatisfying activities of the company; or report them to the President of Ghana. When the company resettled the community, it never replaced all the bedrooms I have in my house at the old community, including my kitchen. With my farms, the company paid compensation but I was not satisfied with the money they paid me. It was inadequate. I sent the case to court and the company lawyer even pleaded to settle the case out of court but I later found out that he was making a fool out of me (Community A resident).

Suglo (1999) also reported over 20 lawsuits against mining companies in Ghana in connection with farmland and crop destruction, and with resettlement compensation. Community resistance of corporate power by legal means was rare and via individual rather than group actions. The rare use of legal channels may be due to inadequate knowledge of the legal system, lack of confidence in the nation's judiciary system, the complexity as well as the relative financial and time costs of the legal system, and possible pessimism about the success in challenging a powerful company in court.

Communities also resisted company actions through non-legal means. This includes peaceful and violent demonstrations against some aspects of the companies' behaviour. Violent demonstration, according to participants, has involved burning company properties, blocking roads to prevent company workers from going to work, and assaulting company security personnel. Peaceful demonstration also involves marching to company premises or plant sites with red armbands and placards stating community complaints. All the communities involved in the study demonstrated in some way to show their displeasure in what participants perceived as unacceptable company behaviours.

Compensation disputes with affected farmers are a source of both legal and non-legal conflict between the study companies and their communities. This is due to community dissatisfaction with companies' rates of compensation, or delay in its payment. Suglo (1999) suggested that compensation paid to affected farmers in Ghana's mining communities should be realistic and uniform. Compensation disputes might be due in part to the differing experience and knowledge companies and communities' representatives bring to the negotiation table. McMahon and Strongman (1999) noted that given the communities' inexperience and lack of knowledge in negotiation, the outcome traditionally has favoured the companies.

Small-scale miners (*galamsey*) in the communities, particularly Community A, have violently resisted the companies' land alienation activities because the large-mines have displaced the illegal small-miners from their previous mining sites. Though the *galamsey* activity is illegal, *galamsey* provided employment to most of the community youth because it requires neither technical skill nor education. The collapse of the *galamsey* has resulted in high unemployment for the local youth. The small-miners, in a bid to make a living, nocturnally operated the pits of the large mines in defiance of companies' security. This has led to clashes with companies' security, which has sometimes resulted in loss of life and property. This scenario occurs frequently in Community A:

> In my community, for instance, the most topical issue that ignites demonstrations, be it chaotic or peaceful, is the issue of small-scale mining. This is because [Company A] currently operates on sites previously worked by the small-scale miners. This has led to the displacement of the miners and has made them unemployed. This embittered some of the youth who resort to demonstration anytime they deem fit (Community A resident).

Suglo (1999) noted that in their desperate attempt to make a living, small-scale miners are compelled to work on concessions of large-scale mines and this has led to violent clashes with the security guards of the companies.

A reason for common use of non-legal resistance as opposed to legal channels may be that it involves little or no financial burden on the community. Aside from this, the channel provides a relatively good platform for aggrieved members to register their displeasure, rather than the formal court procedure. In most cases, the companies have countered this form of community resistance by using national security personnel. At

Community A for instance, this intervention led to the arrest of some community members who the company identified as perpetrators of the demonstration. Other studies have shown that companies have used national security military to quell community resistance to corporate power (see The *Jakarta Post,* 2003; Abrash, 2001; Tartlet, 2001; Ali and Behrendt, 2001; *Drillbits and Tailings*, 2001; Akabzaa and Darimani, 2001; Madeley, 1999).

In conclusion, the study revealed that both corporate and governmental power negatively impacted harmonious company/community relationships through community resistance. The following section explains the effect of trust in company/community relationships.

5.3. Dimensions of Trust

In this study lack of trust came from community experiences in three areas: company responses to complaints in general, health issues, and companies' failure to meet resource development promises. This section discusses these dimensions, and concludes with a discussion of how (dis)trust and power inequity breed adversarial relationships between mining companies and their communities in Ghana's WWD.

The study suggests that the perceived insensitive company behaviour towards their communities has compromised community trust in the companies. The communities evaluate corporate behaviour by comparing the number of times communities made complaints or requests to the companies, with the number of times these were either ignored, acknowledged but not addressed, or given delayed response. Residents in the three communities reported that the companies sometimes trivialized their complaints and as a result never addressed their grievances. Residents cited instances such as water shortages, delayed compensation, and employment and development issues as some of the grievances the companies have either failed to address, or ignored completely. Residents explained that because the companies failed to show some sensitivity to their concerns, they have lost all trust in the mines. Studies have shown that corporations (including mining companies) care less about public interest than they do about their individual interest (Downing et al. 2002; Prager, 1997; Barber, 1983). In a *clientelistic* relationship, the weaker and less powerful partner (communities) in a relationship expects

that the stronger and relatively more powerful partner (companies) demonstrates a special concern for the weaker partner's interest (Govier, 1999). Trust in a *clientelistic* relationship depends on favours the client had received from the patron. Since the communities thought the companies had not demonstrated this *clientelistic* quality, residents have lost trust in the companies.

A second example of community distrust due to perceived corporate insensitivity involved health complaints, particularly in Communities B and C. For instance, in a village near Community B, Company B asked the villagers to report their perceived ailments to the company clinic for diagnosis and verification by the company's Medical Officer to ascertain whether the ailment was mining-related, as the communities claimed. The villagers refused the company's gesture saying their response was long overdue and that the community did not trust any medical officer working for a mining firm. The community thus insisted that the company should send them to a Hospital in the Nation's capital (Accra) for diagnosis, where they believed they could get a fair treatment. This reflects a distrust in local medical officers precipitated by their association with the mining company. Communities attribute certain ailments such as boils, tuberculosis, skin itching, coughs, catarrh, and eye problems to company operations. The distrustful interpretation of the companies' operations may have made communities over-attribute these ailments to the companies. Luginaah et al. (2002) observed that distrust in the Petroleum Company in Oakville, Ontario, made residents over-attribute and over-interpret their ill-health and cancer incidence to the company's refinery with no substantive proof. I acknowledge that mining activities do cause health problems in communities where they operate. Yet communities' distrust of the companies may have led to excessive attribution to companies without substantive proof. Govier (1997) stated that trust affects our perception and interpretation of what other people do.

A third dimension of community distrust in companies is failure of the companies to meet resource development promises made to communities. This distrust was more prevalent in Communities B and C, where residents said the initial promises heightened community expectations and made them support the companies during project development. Residents perceived that breach of promises, particularly for employment,

regular water supply, and community development assistance, has drastically reduced the communities' trust in the companies:

> Based on their initial promises, we thought the mine was coming to assist us to develop our area, but what the mine has done is indeed below our expectations. Initially our expectation was high but has reduced from high to moderate in recent times. The reduction in expectation is due to the hopelessness and lack of trust we now have in the company. The community has waited for far too long and we are not getting the things we were expecting (Community C resident).

To be trusted in a relationship, a partner ought to keep to his/her word, promise, or verbal or written statement (Govier, 1997). A partner must also not manipulate parties made vulnerable by their relative ignorance (Govier, 1997, Heimer, 1976). Communities may not have seen companies demonstrate these trustworthy qualities, and so have lost trust in companies.

While many researchers acknowledge that mining companies sometimes create unfulfilled resource development expectations among their communities (see Ali and Behrendt, 2001; Veiga et al., 2001; Thomsom and Joyce, 2000; Akabzaa and Darimani, 2000; McMahon and Strongman, 1999; Madeley, 1999; Macfarlane and Akabzaa, 1999; Epps, 1997; Prager, 1997; Aubynn A.K, 1997; Boateng, 1997), Govier (1997) and Barber's (1983) theories of trust explain that social relations involve acting upon expectations, which are partly emotional, moral or cognitive (Barber, 1983). Based on this theory, and supported by some of the responses of my study participants, it appears that not all communities' expectations are based on company promises. Some of their expectations are residents' own mental constructs based on general benefits expected from resource development. However, Govier's (1997) theory of trust argues that when we trust, we generally have positive expectations about what other people will do in a relationship. When we trust, our expectations are open-ended, meaning we do not have a list of all the things a partner is supposed to do in the relationship. It is expected that a trustworthy partner will do what is fitting and appropriate in the relationship as the situation changes and issues arise (Govier, 1997).

The study concludes that there were different levels of distrust in the companies' operation in all the three communities. Distrust was highest among residents in Communities B and C, where residents thought Companies B and C have not fulfilled most of their pre-establishment promises. Residents in Community A, however, were

relatively fairly satisfied with the development commitment of Company A. Company A's commitment to Community A's development was attested by a manager in Company C:

> When they [Community C] are asking for things, I know that they are asking for things because they probably think that we are gold mining company and so I have got money. Even at [Community A] where the company has invested billions of Cedis on community development, has community demands on the company stopped? (Community C manager).

Community A's distrust in Company A, however, hinges mainly on non-response, or delay in responding to community complaints and grievances, such as malfunctioning of the water pumping machine, which results in water shortages; compensation, local employment, and promise to extend the piped water throughout the community. Residents were also dissatisfied with Company A's handling of *galamsey* activity in the community, which has often led to company/community conflict.

5.3.1. Effects of Distrust and Power Inequity in Company/Community Relations

In Communities B and C, where perceptions of corporate insensitivity and breach of promises were high, some residents pointed out consequences of distrust in company/community relationships:

> I think one of the reasons why people speak against these mining companies is that some of them do not live up to their social responsibilities in the areas where they work. The mine should be seen to honour its promises made to the community, particularly on employment. Breach of promise constitutes breach of trust, and lack of trust brings about suspicion and misunderstanding between the community and the company. So if the mine wants the community to accept them as partners and trust what they tell us, then the company must not renege on its promises to the community (Community B Opinion Leader).

Some residents also believed that the companies failed to uphold their promises because communities did not enter into legal agreement with them:

> Because the community failed to enter into any formal or legal agreement with the company concerning the promises they made to us, the company easily rejects any demand we make on them (Community B resident).

> In fact aside from compensation and land replacement, all other promises and [verbal] agreements have not been honoured to date. The reason is that the community did not enter into any written agreement with the company and so there is no evidence to prove that the company actually did make these promises. The company management which made the promises is no more with the mine. I think other communities which are about to host mining companies should learn from our lessons (Community C resident).

The above responses indicate that distrust in community-corporate relations creates suspicion and misunderstanding in companies' operation. Distrust also causes communities to believe that legal or contractual agreement with companies is the appropriate means of ensuring that companies meet their pre-establishment promises. Barber (1983) noted that when promises or expectations are (dis)honoured, they have some ramifications in a relationship. He explains that when trust in traditional society fails, community members use informal social control mechanisms (such as demonstrations, expressed disapproval, lack of co-operation) to redress the situation. These alternative control mechanisms, according to Barber, are meant to make partners become trustworthy. Ali (1997) also noted that response to distrust in expert-lay interaction involves certain social control mechanisms, including the "insistence on contractual forms of behaviour" (Ali, 1997: 501). He explains that such alternative control mechanisms are rational and are meant to ensure social order at the project sites. Hobbes (1985) also argued that where self-interest and distrust reign supreme, contractual agreement is an appropriate means of ensuring morality and civility. Barber's theory, Hobbes' ethical philosophy and Ali's finding confirm communities' responses to consequences of distrust in corporate/community relations.

Though the study on the surface indicates that community distrust in companies is due to perceived corporate insensitive behaviours and breach of promises, Govier (1997) argued that due to competition for limited resources in their environment, entrenched poverty, and long history of mistreatment, peasant communities (such as my study communities) naturally have high distrust and suspicion in others, straining social and co-operative development efforts. On the bases of Govier's theory, I argue that communities' distrust in companies cannot wholly be ascribed to the companies' misdemeanours towards them. Rather, community distrust is a facet of peasant societies' distrust in "outsiders". Thus communities insist on contractual relationships as an alternative social control mechanism to ensure that companies become trustworthy in their relationships with communities. All social interactions are based on positive expectations (whether or not they are listed) that partners have for one another. Companies must manage these expectations if they want to build a long and sustainable trust with their communities to reduce current adversarial relationships. Trust is slow and

difficult to build in communities; it is, however, quick and easy to destroy. Community relations is as important to project success as any other factor.

Governmental power also affects corporate- community relations. I realized from the interviews that exclusion of communities in governmental decisions about land concessions for mining had strained company/community relationships:

> Indeed, the community became worried the first time the company came here because no prior information or consultation was held with the community or with the opinion leaders. The company just came to the community with its workers and started exploring for gold on our land. This lack of prior consultation compelled us to register our dissatisfaction to the District Chief Executive… So we were not happy at all with the company at the initial stage of the mine operation because the company never entered into any formal consultation with the community (Opinion Leader in Community A).

This experience, according to the residents, ignited initial animosity, hatred, and suspicion towards the company and its workers. Meanwhile, community involvement in land concessions for mining is the responsibility of the national government, rather than of the mining companies. Thus by exercising its rational-legal authority, the government compromised the companies' relationships with their communities at the initial phase of the projects. Suorineni and Suglo (2000) asserted that the land acquisition procedure in Ghana ignores the communities under whose jurisdictions the concessions reside, and this exclusion requires that special arrangements be made later between the companies and community chiefs to ensure co-operation during mineral development and operation. These arrangements may include financial extortion from the companies and implausible promises to communities.

In conclusion, this study has shown that the mining companies' perceived insensitive behaviours towards their communities have contributed to the poor company/ community relationships. Madeley (1999) stated that unless TNCs change their code of behaviour they will outstay their welcome in developing countries. Communities have used both legal and non-legal channels to resist mining companies' perceived insensitive behaviour towards them. Madeley (1999) noted that none of these channels of community pressure for more power or corporate social responsibility has proved successful. Notwithstanding their ineffectiveness to reduce corporate power, "social instability and discontent… can play a far greater role in determining the ultimate success of a mining operation than had been historically calculated in mineral investment

decisions" (Veiga et al., 2001:198). The concepts of fiduciary obligations and responsibility explain why more responsibility may be required from the more powerful and capable members of a relationship (Barber, 1983). Thus attitudinal change in both the government and the study companies towards their communities is vital for establishing a healthy relationship with the communities.

5.4. Corporate-Community Relations

In summary, the study identified three main sources of adversarial relationships between mining companies and neighbouring communities in WWD (see Figure 5.1).

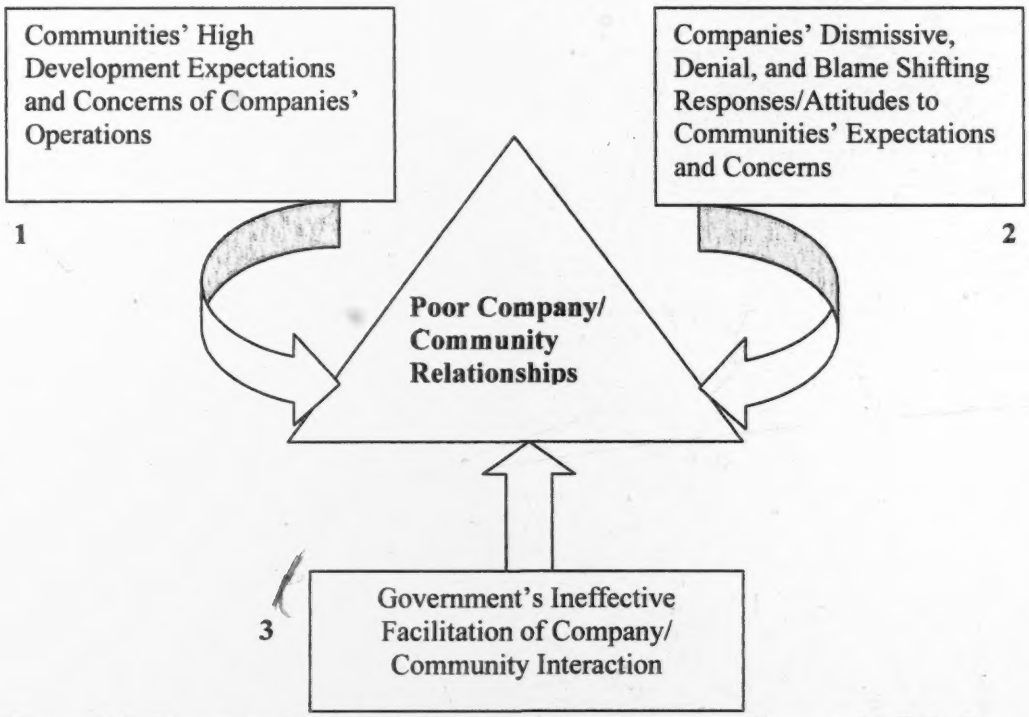
Communities' High Development Expectations and Concerns of Companies' Operations
Companies' Dismissive, Denial, and Blame Shifting Responses/Attitudes to Communities' Expectations and Concerns
1
2
Poor Company/ Community Relationships
3
Government's Ineffective Facilitation of Company/ Community Interaction

Figure 5.1. Conceptual Model of Sources of Poor Company/Community Relations

The poor relationships began with communities' high expectations and concerns of mining companies' activities. These expectations and concerns were influenced by such factors as:

- Poor pre-mining socio-economic conditions;
- Governments' neglect of rural development;
- Inequitable distribution/misapplication of royalties;

- Companies' resource development promises;
- *Clientelistic* relationships of peasant societies;
- Distrust in companies' operation;
- Governments' failure to educate communities about what they can and cannot demand from companies;
- Lifestyle differences between company workers and unemployed community members; and,
- The perception that mining is one-time-only venture.

More often than not, the companies used dismissive, denial and blame shifting tactics to manage community expectations and concerns. This has often led to company/community conflict and strained relationships. The companies' responses and attitudes towards communities were influenced by factors as:

- Corporate power;
- Market ideology;
- Relatively small budgetary allocation to social/community development programmes;
- Inequitable distribution/misuse of royalties;
- Absence of legal obligation to community development; and,
- Lack of genuine commitment to corporate social responsibility ideology.

The government (both the central and district), instead of performing effective facilitation of company/community interaction for a more harmonious co-existence, rather compounded their adversarial relationships through poor facilitation. The main sources of governments' poor facilitation were:

- Failure to satisfactorily develop rural communities (traditional responsibility) to reduce expectations on companies;
- Failure to translate royalties into community development;
- Failure to educate communities about what they can and cannot demand from companies;
- Governmental power – failure to involve communities in land leasing to companies;
- Inequitable distribution of royalties; and,
- Failure to make community leaders accountable for misapplication of royalties.

Thus harmonious relationships between mining companies and neighbouring communities require mechanisms that will reduce communities' expectations and concerns about company operations, make companies change their attitudes and communication strategy towards communities, and make government perform effective facilitation of company/community interaction. The change in policies and practices of these actors will not only enable companies to negotiate acceptable relations with communities, but also promote sustainable mining and sustainable mining communities.

Chapter Six

Conclusions and Recommendations

The main purpose of this study was to identify, using mainly qualitative methods, the socio-economic and environmental impacts of gold mining as perceived by resource communities in Ghana. A second objective was to document the complex relationship between three gold mining companies and their closest neighbouring communities, and to gain an understanding of the perceptions of local communities about mining projects. Seven residents in each community and three managers in each company were interviewed. In addition, I also interviewed four key persons representing Ghana's Wasa West District and Central Government.

In response to the first research question (perceived impacts of the companies' operation), the study revealed that company activities have generally improved the socio-economic life of the three communities, but have worsened their environmental situation. Residents noted improvements in infrastructure, commerce, employment (quality but not quantity), education, health, and the built environment. They, however, perceived that crime, land issues, cost of living, agricultural activity and the physical environment have worsened from their pre-mining situation.

The analysis revealed that land issues, frequent water shortages, perceived marginalization of local labour in employment, perceived delay and inadequate crop compensation, and exclusion of communities both from corporate and governmental decision-making in respect of leasing community land, were communities' major concerns of mining. The implication of these concerns is the strained relationships between the communities' and the companies. While communities strongly blamed the companies for these negative impacts, the companies dismissed, denied and shifted blame about communities' perceived negative attributions of their activities. Companies, however, easily accepted positive attributions from the communities. These tactical corporate responses to community concerns have led to community perceptions that the companies were insensitive to the plight and welfare of communities. Mining projects, arguably, do bring economic benefits to communities, but it also raises environmental and sustainability concerns. Some of the concerns are well founded. Others are based on

myths and misconceptions, and it is important for companies to acknowledge these fears and deal with them in order to create a positive relationship with communities. It is important to note that I did not undertake any empirical measurements of selected indicators and thus the results do not constitute quantitative and replicable impacts of the companies on their communities. Nonetheless, the results are relevant because perceptions of an issue approximate reality, and constitute a useful road map to the reality of the problem.

In response to research question two (communities' common expectations and their rationale) the study showed that employment and development assistance were communities' high priority from mining projects. Communities wanted companies to regard these expectations as corporate obligation. Residents' main reasons for their high expectations were that communities bear the negative impacts of the mines' operation, and provide the mineral resources to sustain the enterprise and so must share the benefits. They also thought their expectations were within the context of corporate social responsibility.

I realized communities' development and employment expectations of mining contrast with resource development expectations of some communities in developed countries, particularly in Canada, where environmental quality and concerns for health were communities' overriding expectations of project development. The analyses showed that the poor pre-mining socio-economic conditions of the communities; lifestyle differentials between company workers and the large pool of unemployed community members; lack of physical manifestations in the communities of royalties paid by companies; community perception that mining is a one time-only venture; the impact of globalization, information technology, and community activism; and, companies' resource development promises, accounted for communities' high expectations of companies, and perhaps deferential expectations of project development between communities in developing and developed countries.

In answer to the third question (which expectations, according to the companies, are unrealistic), the study revealed that the companies dismissed and branded most of the communities' expectations as unrealistic based on greed and general public perception that mining companies are rich. These included employment for all local labour, on-the-

job training, establishing non-mining ventures in the communities, and certain social provisions. The study revealed that companies regarded community assistance as voluntary because they paid royalties to the central government, part of which were meant for community development. The study also showed that the companies had a solid understanding about the level of community expectations of them, but knew little about their rationale. Insufficient knowledge about rationale for community demands implies there is little community engagement; thus companies would continue to dismiss community expectations as baseless. This will not augur well for a positive relationship between companies and neighbouring communities. A progressive company should operate to reflect the values, expectations and needs of the community.

The analysis showed communities had some unrealistic expectations of the companies, and suggested these were fuelled by communities' *clientelistic relationships* with the mining companies, the central and district governments' neglect of rural development, and governments' ineffective facilitation of company/community. However, the absence of legal specificity of companies' obligation to community development (as exists in physical environmental rehabilitation), made companies use their discretion to decide which community demands were reasonable, and which were not. The decisions, based on companies' value judgement, are contingent on such factors as corporate budgetary allocation to social development programmes, companies' genuine commitments to corporate social responsibility, and companies' market ideology. The study revealed that the mining companies in WWD were constrained by these factors, thus companies may have limited options other than branding even communities' genuine demands as unreasonable.

The study, in response to question four (sources of company/community conflict), revealed that the differing perceptions of companies and communities regarding realistic versus unrealistic demands, and in fact the companies' dismissive and denial responses to community grievances and perceived negative attributions, have ignited company/ community conflict. The major sources of these contentions centered on local employment, perceived inadequate and delayed crop compensation, perceived frequent water shortages, and small-scale mining activity. Interestingly, residents revealed that most of these conflicts occurred at the time physical scientists in the companies (i.e.

geologists) were managing community relations. Residents perceived the conflicts decreased after the companies employed different personnel to manage the communities. A background check of these personnel revealed they are social scientists.

The analysis also showed that governments' failure to effectively facilitate company/community relations, and failure to properly translate royalties into meaningful community development, compromised the relationship between the companies and their communities in two ways. First, the failures partly led to heightened community expectations of companies for development and employment. Second, the failures also contributed to companies dismissing some community demands as unrealistic because royalties had been paid to the government. Both heightened community expectations, and companies' inability or unwillingness to honour community demands, have contributed to poor company/community relationships.

Despite the dominance of these contentions and negative attributions, the study showed that the communities welcomed the presence of the mines in their area because of development projects they had received from the companies and the potential for future benefits. The main reason for communities' support for the mines, according to residents, was not so much because the social benefits of the mines' activities outweigh the social costs, but that the current levels of development in the communities would have been impossible in the absence of the mines. This affirms communities' distrust in both the central and district governments' commitments to rural development. Yet the communities perceived that the development assistance from companies was inadequate and below what the companies initially promised them. This suggests the possibility for companies and communities to co-exist harmoniously if companies and governments (district and central) could change their attitudes towards resource communities. Underlying these more specific demands and expectations, however, are the issues of power and trust, which influence relationships between the companies and the neighbouring communities in WWD.

6.1. Power and Trust

Two dimensions of power emerged from my analysis of mining community/company relations in the WWD. The first is between the communities and

the government in leasing community land to companies for prospecting and mining. The second dimension of power is between the mining companies and the communities, which occurs during all stages of interaction, from exploration to mining. In both cases, the analyses showed power concentration in government and corporations over communities.

The study revealed that the government consulted the communities but failed to involve them in the initial discussion with companies before authorizing exploration on community land. The government's use of the District Administration units, rather than local communities directly in the consultation process was inappropriate because resource communities are demanding participatory democracy, rather than representative democracy (as adopted by the Ghana Minerals Commission), in resource development decisions. Community exclusion was also a violation of International Labour Organization resolution 169.

Though communities had not resisted governmental powers because residents thought, among other factors, that the government has the rational-legal authority to release mineralized land for companies, I realized from the interviews that exclusion of communities in governmental decisions about land concessions for mining strained company/community relationships, particularly at the exploration stage, as communities were unhappy and perceived companies as 'outsiders'. The literature also indicates that community exclusion requires that special arrangements be made later between the companies and community chiefs to ensure co-operation during mineral development and operation. These arrangements may include financial extortion from the companies by communities, and implausible promises to communities. Thus non-involvement of communities in the land acquisition procedure ultimately compromised company/ community relationships in the WWD.

Corporate power manifested in what residents perceived as corporate insensitive behaviour towards addressing community grievances and complaints. The insensitivity centered on crop compensation, frequent water shortages, employment, perceived environmental pollution, community development, and small-scale mining. The perceived corporate insensitivity towards community complaints had changed the hitherto stable character of the communities into a relatively unstable one. Using their

power of solidarity, the communities have resisted corporate power through both legal and non-legal means. The study revealed minimal use of legal channels. A reason for common use of non-legal resistance as opposed to legal channels may be that it involves little or no financial burden on residents. It also avoids the formal court procedure. In most cases, the companies countered this resistance through military intervention, which worsened the already adversarial relationship between the companies and their communities. Thus none of the channels for community resistance for more (or different) corporate social responsibility has, by itself, demonstrated great power or widespread effectiveness. Nonetheless, the literature consistently indicates that social instability and discontent over corporate behaviour can play a far greater role in determining the ultimate success of a mining operation than had previously been calculated in mineral investment decisions (Veiga et al., 2001; Thomson and Joyce, 2000; McMahon and Strongman, 1999). Thus until companies change their behaviours towards communities, they will outstay their welcome in resource communities.

Three threats to communities' trust in WWD mining companies were manifested in health issues, perceived broken promises, and perceived corporate insensitive behaviour towards communities. The study revealed that communities' distrust in the companies' activity has led to over-attribution of certain ailments (such as boils, tuberculosis, skin itching, coughs, catarrh, and eye problems) to companies' operation without substantive proof. Communities' distrust in companies has had additional ramifications. For instance, it has caused communities to be suspicious of the companies' interaction with them. The perceived 'broken promises' of companies has also led communities to propose legal or contractual relationships with mining companies. These alternative social control mechanisms, according to the residents, were purported to make companies honour their obligations in the relationship. However, due to peasant societies' natural distrust in 'outsiders', communities' distrust in companies cannot wholly be ascribed to the companies' misdemeanours towards them, but rather it amplifies peasant societies' distrust in 'strangers'.

Based on the findings of the study, I posit that mining companies could improve community/mine relationships by:

1. Committing more than the current share of the mining benefits to community long-term development;
2. Honouring resource development promises made to communities;
3. Consulting and involving communities in the decision making process in all stages of the mine development; and,
4. Becoming proactive in restoring the environment to its pre-mining level.

To this end, I make the following recommendations

6.2. Recommendations

1. It is recommended that both companies and communities be empathetic to each other's interest and strive for mutual understanding and co-existence. Since companies are 'guests' to communities, companies must first demonstrate empathy for community interest and concerns if they want communities to fully accept the project. To this end, I suggest the companies change their attitudes towards their communities by listening to their concerns and make genuine efforts to address them. Companies should also recognize communities as genuine stakeholders and involve them in all decision-making processes. Effective community engagement could be attained through the establishment or strengthening of company/community liaison committee to address community fears and concerns of mining. Since community perception of an issue is dynamic, companies should carry out periodic research or attitudinal surveys on changing community perceptions of their operations to inform company social policies. Social issues require the right professional skills in the same manner as geology and engineering; companies should make real efforts to recruit social scientists to handle community relations issues rather than social issues becoming added responsibilities of geologists, engineers or physical environmentalists. Community relations personnel of companies should also establish links with local schools to educate the youth about the operations of the mines, and organize or allow visits to company sites by community representatives. Considering the low level of education among farmers in the area, companies should freely offer investment advice during compensation payment so beneficiaries/farmers do not misapply their moneys. The companies should also find a lasting solution to the

perennial water problems in their communities. It is hoped these suggestions would help minimize negative community perceptions, fears, inaccurate and alarming speculations about the companies' operations, as well as help build community trust in companies.

2. To enhance community development, it is recommended companies increase their budgetary allocations for social development programmes. The ultimate decision-makers on budgetary allocations should pay periodic visits to project sites to acquaint themselves with the nature of community expectations. It is also suggested companies institute (as corporate policy) what I refer to as *community development tax* on company workers (including expatriate staff) and on-site contractors working for the mines, since many of them do not live and invest their wealth in the communities where they earned them. The tax could be a fixed sum of money deducted monthly from employees' salaries and contractors' income, and paid into a c*ommon fund* to be administered both by the communities and the companies. The benefits of the fund should clearly be separated from that of corporate community assistance. The policy would have the advantage of making employees and contractors also contribute towards community improvement. When used for such activities as skill and entrepreneurial training, community scholarships, and other development projects, the fund could help minimize employment conflict because community members would see the worth of "outsiders" in community development. The fund would also cushion communities financially against immediate post-closure 'shocks' of the mines.
3. For the government, I suggest it re-evaluate its policies towards mining communities to inculcate direct input from community residents (represented by their leaders) so that the interests and concerns of the local communities would be factored into final decisions over leasing land. This must be done before authorizing companies to explore community lands. Land is absolutely fundamental to peasant communities, and it is the very basic of their livelihood.
4. To reduce the spillover of government's inactions on company/community relationships, it is suggested the government should increase the proportion of project revenues that go directly to the communities and establish a transparent tracking

mechanism that would make community leaders accountable for the use of the revenues. Government should approach its dealings with community leaders with tact and sensitivity to culture. Government should also make efforts to develop mining communities to reduce community expectations on companies. Given the boom and bust nature of mining and its effects on community viability, it is suggested that the District Administration should have a sustainable development blueprint plan of action that could be implemented when the mines are gone. This could save the communities from becoming ghost towns after the mines' closure. In addition, government should clarify the responsibility for social provision to communities during the project approval process, so that communities would not regard companies as surrogate government, but rather as partners in development. For this education to be truly effective, government should build trust in communities to remove the negative perception that it collaborates with companies to exploit communities. However, given community's long history of distrust in central government's commitments to rural dwellers, trust building in communities would not be achieved overnight. Government should be consistent with its educational programmes and be truly seen to play a neutral role in company/community interactions.

5. For the communities, harmonious co-existence with companies would require that communities take advantage of the presence of the companies to initiate and sustain their own development projects. To bring about progressive development in peasant communities, communities need some experience of their own competence, responsibility, and agency. To this end, communities should stop regarding development as a responsibility of an alien agency (government and corporations) and develop faith in their own ability to change their destiny. Residents should take advantage of the democratic dispensation in the country to demand judicious use of community share of royalty from their local leaders. Communities should also take advantage of their current high population to raise their own revenue by instituting development levy on all community residents. Parents should also take advantage of the educational awareness created by the mines to educate their children so the children could look for jobs elsewhere. In addition, communities should endeavour to develop a good rapport with the companies by not allowing their natural distrust in

others overshadow the positive gestures from the companies. Suspicion and distrust not only cut the community off from the company, but also miss out on valuable opportunities. It is important for the communities to also respect and trust the corporate personnel with whom they deal with.

6. The communities should understand that the perceived unsatisfactory level of development in their area is not only a function of companies' neglect and perceived insensitivity, but also the district and central governments' failure to develop their communities. To this end, I suggest mining communities come together to form an association or pressure group, to be known as Association of Mining Communities (A.M.C). The objective of the association should include serving as watchdog on District Administration regarding the use of the District's share of royalties (the 6%); demanding from the District Administration its sustainability plans for the communities after the mines are closed; campaigning against the use of the District share of royalties for administration rather than development purposes; lobbying, through their Members of Parliament, media, local and international NGOs, and the Ghana Chamber of Mines, to prevail upon the central government to increase community share of royalties. For it to get a legal backing and national recognition for its activities, the association should register with National/Regional Youth Co-ordinating Center. For the campaign and lobby to be truly effective and successful, community leaders must be seen to be making judicious use of the 2% share of royalty allocated to them.

It is hoped the results and the recommendations of the study may help companies negotiate acceptable relations with their communities.

6.3. Direction for Future Research

This study has revealed a variety of future areas of research. The study relies mainly on local perceptions to make meaning of the impacts of mining on the lives of communities living around vicinity of mining operation. Prior to conducting the interviews, I thought all I would have to do is to determine how people felt about their places and about the impact of mining on their communities. It would be a straightforward process to integrate this information into a project planning framework

and facilitate a public involvement process that would enable mining developers to determine the meanings and values people have for their communities. However, even though I maintained a very open perspective throughout the process, I feel I grossly generalized what respondents said. There are many ways that people think about their communities. In some cases people are very desensitized to their community and in other instances, people seem to be highly sensitive in that their communities anchor important times, memories and values for them. Nevertheless, places are contested spaces, a factor that is not taken up fully by the state agencies overseeing mineral development in Ghana. This opens up an avenue for a more comprehensive study into the conflict, distortions and contradictions in the use of resource spaces among different users in Ghana. This is to ensure that the development of natural resources does not become inimical to the values and livelihoods of the people to which it intends to benefit.

Prior to carrying out the research, I thought conflicts in mining communities were mainly due to communities' unrealistically high expectations on companies. Little did I know that the behaviour of companies and government greatly contribute to the instability in, and the behaviour of, mining communities. This opens up arena for an in-depth study into the problem, particularly the role of government and companies in ensuring sustainable mining in Ghana. There should be a comprehensive study to produce a framework strategy that could facilitate harmonization of economic and commercial objectives of mineral extraction with the imperatives of community sustainability and environmental protection at the micro-level. This is to guide future development and sustainability research at the community level in Ghana.

This study also identified a number of environmental issues though communities were generally more concerned about economic benefits of mining than environmental issues. Environmental regulation and mining industry's initiatives to manage environmental and social issues, for the most part, represent a response to societal concerns (Aidan, 1999). Also, worsening environmental problems have prompted a rethinking of development agendas linking issues of sustainability to more traditional concerns for growth and equity (Brohman, 1996). This calls for a more comprehensive study that explicitly identifies and exposes societal concerns of mineral extraction to help

influence environmental and development regulations, and effective management of social issues in Ghana's mining industry.

For want of time, this study could not incorporate inputs from mining NGOs and ENGOs. There is a growing consensus among environmental and social researchers that truly effective management of social and environmental issues should involve constructive inputs from governments, private enterprise, communities and civil society (Akabzaa and Darimani, 2001; McMahon and Strongman, 1999; Macfarlane and Akabzaa, 1999; Aidan, 1999). Related to this is the fact that most mining communities in Ghana in recent times affiliate with mining and environmental NGOs, whose relationships with mining corporations have been, for the most part, adversarial. NGOs have some influence on community perceptions of mining. Thus for more holistic approach to the study of company/community relationships, future research should include inputs from NGOs or civil society.

Methodologically, social impacts of an activity (such as mining) have both objective and subjective aspects (Vanclay, 2002; Macfarlane and Akabzaa, 1999; Boateng, 1997). My study employed the subjective approach of people's perceptions to make meaning of the impacts of mining on community lives. The study did not undertake empirical measurements of the indicators selected for the study and so the companies' 'real' impacts cannot be determined from this study. To undertake future impact assessment of companies' operation on communities in more holistic manner, a technocratic approach and triangulation methods might be appropriate. These approaches and methods would combine a quantitative measurement of impact indicators with qualitative interviews for more rigorous results.

Finally, due to time and financial constraints, the scope of the study was limited to WWD in Ghana. Cross comparison of company/community relationships in different geographic districts in Ghana would have provided more transferable results to other parts of Ghana. To ensure more transferable results and cross comparison of company/community relationships, the scope of future research should be expanded to include other mineralized regions in Ghana.

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Appendices

Appendix A: Interview Guide

A.1. Interview Schedule for Community Residents

COMMUNITY PERCEPTIONS MINING: AN EXPERIENCE FROM WESTERN GHANA.

An Interview Schedule to Elicit information from Residents of Mining Communities

THE PURPOSE OF THIS SURVEY IS TO GATHER INFORMATION ON THE ABOVE SUBJECT MATTER. THIS IS PURELY AN ACADEMIC EXERCISE AND ANY INFORMATION PROVIDED WILL BE ACCORDED CONFIDENTIAL TREATMENT.

PERSONAL CHARACTERISTICS OF INTERVIEWEE

- Name: of town/village?
- Age Sex: Male [ ]
  Female [ ]
- Marital Status:
  - Single
  - Married
  - Divorced
  - Widowed
- Educational background:
  - No formal education
  - Elementary school
  - Secondary school
  - Technical school
  - Teacher training college
  - Polytechnic
  - University
  - Others, specify
- Ethnicity?
- Were you born in this town/village Yes [ ] No [ ]
- If no, when did you come to live and what brought you here

A. COMMUNITY PERCEPTION OF MINING OPERATIONS

1. Which mining Company operates in your community and when was it established?

1b. What happened between the company and the community concerning the establishment and operation of the mine in your community?

1c. What were your initial expectations when you first learnt about the intention of the company to establish and operate in your community?

1d. Currently what is your impression about the company?

B. ECONOMIC IMPACTS ON THE COMMUNITY

2. Could you please briefly describe the economic landscape of your community before the establishment of the mine? (touching on trade & commerce, job opportunities/level of employment, cost of living, agriculture, and nature and level of socio-economic infrastructure?

2b. How has the company's operations affected employment in your community?

2c. What alternative arrangements were provided by the company for those whose jobs were adversely affected (if any) because of the mine's operation

2d What percentage of the total employees of the company (and all contractors working for it) come from this community?

2e. I want to ask you about the impact that the mine has had on some economic indicators/structures in your community. On a scale where (-5) is very negative, 0 is no impact, and +5 is very positive, please tell me what **you** think has been the effect of the mine on:

THE IMPACT OF THE MINE ON ECONOMIC INDICATORS/STRUCTURES.

	Negative Impacts	Zero Impacts	Positive Impacts
Indicators	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Agriculture			
Trade & Commerce			
Employ't/Job Opp'ty			
Personal Income level			
Socio-Econs Infrast.			
Cost of Living			

Please justify your responses:

I have a list of some selected staples in the table below; please estimate the prices of these food items before and after the company got established in your community.

PRICES OF SELECTED STAPLES AT PRE- AND POST MINING PERIODS

Food Items	Quantity	Pre-mining Price ¢	Post-mining price ¢
Cassava	4 average size roots		
Plantain	5 average size fingers		
Cocoyam	10 average size corm		
Yam	1 average size tuber		
Maize	1 fertilizer bag		
Rice	1 Margarine cup		

2f. What **other** economic factors do you think have contributed to changes in the economic indicators mentioned in 2e?

C. SOCIO-CULTURAL IMPACT ON THE COMMUNITY

3. Please briefly describe the socio-cultural landscape of your community before the establishment of the mine? (touching on education, land tenure, health, housing/settlement, population, general security, cultural values

3b. I want to ask you about the impact that the mine has had on some socio-cultural structures in your community. On a scale where –5 is very negative, 0 is no impact, and +5 is very positive, please tell me what **you** think has been the effect of the mine on:

IMPACT OF THE MINE ON SOCIO-CULTURAL STRUCTURES

	Negative Impacts	Zero Impacts	Positive Impacts
Indicators	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Education			
Housing/Settlement			
Land Issue			
Security/Crime			
Cultural Values			
Population			
Health			

Please justify your responses:

3c. What **other** factors do you think have contributed to changes in the structures mentioned in 3b?

D. ENVIRONMENTAL IMPACTS ON THE COMMUNITY

4. Briefly describe the environmental (physical and built) conditions of your community before the mine was established

4b. I want to ask you about the impact that the mine has had on some environmental elements in your community. On a scale where **–5** is **very negative, 0** is **no impact,** and **+5** is **very positive,** please tell me what **you** think has been the effect of the mine on:

IMPACT OF THE MINE ON ENVIRONMENTAL ELEMENTS

	Negative Impacts	Zero Impacts	Positive Impacts
Elements	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Water & Sanitation			
Air Quality.			
Noise & Land Vibration			
Diseases			
Land Pollution			
Built Environment			

Please justify responses:

4c. What **other** factors do you think have contributed to changes in these environmental factors mentioned above?

E. ENSURING SUSTAINABLE MINING IN THE COMMUNITY

5. What investment has the company made in your community other than the mine itself?

5b. What do you think will happen to the community's economy when the mine is gone?

5c. Under the basis of (5b) what should be done to sustain the tempo of your community

5d. Some schools of thought believe that the recent public outcry against mining/gold mining industry in Ghana is mainly a function of the industry's modus operandi. What is your view on this?

F. COMMUNITY DEVELOPMENT EXPECTATIONS

6. What development benefits have your community derived from the **presence** (direct and indirect) of the mine?

6b. How could your community have achieved these benefits in the absence of the mine?

6c. How would you **rate** the development expectations of your community from the mine?

- Very High
- High
- Moderate
- Low
- Very low

Please justify your response:

6d. Some people share the opinion that the impact of royalty payment on community development will be much more felt if paid **directly** to the community than **through** the central government? What is your position on this idea?

G. COMPANY-COMMUNITY CO-EXISTENCE/RELATIONS.

7. What are the sources of friction or conflict between your community and the company?

7b In your opinion, what factors enhance receptivity/acceptability of mining establishments to communities?

7c. How do you assess the existing relations between your community and the mine?

7d. What factors have led to this relation as mentioned in (7c)?

7e. Suggest ways that can enhance/further enhance relations between your community and the mine?

H. COMMUNITY APPRAISAL OF THE MINE

8. Comparing the negative with the positive impacts, do you welcome the mine in your community?
Yes [ ] No [ ] No Response[ ]

Please justify your responses:

Thank you for time and co-operation. Do you please have a question for me?

A.2. Interview Schedule for Corporate Managers/Officers

COMMUNITY PERCEPTIONS OF MINING: AN EXPERIENCE FROM WESTERN GHANA

An Interview Schedule to Elicit Information from Management of Mining Companies (Environmental/Human Resources/Community Relations/Managers/Officers).

THE PURPOSE OF THIS INTERVIEW IS TO GATHER INFORMATION ON THE ABOVE SUBJECT MATTER. THIS IS PURELY AN ACADEMIC EXERCISE AND ANY INFORMATION PROVIDED WOULD BE ACCORDED CONFIDENTIAL TREATMENT.

COMPANY BACKGROUND

- What is the name of your company?
- Could you please tell me what you do in the company?
- Which communities do you consider as your catchment communities?
- Brief background of your company including its headquarters?
- How long does your company intend to operate in this community?

COMMUNITY PERCEPTION OF MINING OPERATIONS

1a. What happened between the company and the community concerning the establishment and operation of the mine in this area?

1b. What were the community's initial expectations when they first learnt about the intention of your company to establish and operate in this area.

1c. Currently, what is the community's impression about your company?

1d. What is the company's impression about its operations in the community?

B. ECONOMIC IMPACTS ON THE COMMUNITY

2. How has your company's operations affected employment in the communities?

2b. What alternative arrangements were provided by your company for those whose jobs were adversely affected (if any) because of the mine's operation?

2c What percentage of the total employees of your company (and all contractors working for it) come from the community?

2d. I want to ask you about the impact your mine has had on some economic indicators/structures in the community. On a scale where (-5) is very negative, 0 is no impact, and +5 is very positive, please tell me what your company thinks has been the effect of the mine on:

THE IMPACT OF THE MINE ON ECONOMIC INDICATORS/ STRUCTURES.

	Negative Impacts	Zero Impacts	Positive Impacts
Indicators	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Agriculture			
Trade & Commerce			
Employ't/Job Opp'ty			
Personal Income Level			
Socio-Econs Infrast.			
Cost of Living			

Please justify your responses:

2e. What **other** economic factors does the company think have contributed to changes in the economic indicators mentioned in 2e?

C. SOCIO-CULTURAL IMPACT ON THE COMMUNITY

3. I want to ask you about the impact that your mine has had on some socio-cultural structures in the community. On a scale where –5 is very negative, 0 is no impact, and +5 is very positive, please tell me what your company thinks has been the effect of the mine on:

IMPACT OF THE MINE ON SOCIO-CULTURAL STRUCTURES

	Negative Impacts	Zero Impacts	Positive Impacts
Indicators	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Education			
Housing/Settlement			
Land Issue			
Security/Crime			
Cultural Values			
Population			
Health			

Please justify your responses:

3b. What **other** factors does the company think have contributed to changes in these social indicators as mentioned in 3b?

D. ENVIRONMENTAL IMPACT ON THE COMMUNITY

4. I want to ask you about the impact that the mine has had on some environmental elements in the community. On a scale where –5 is very negative, 0 is no impact, and +5 is very positive, please tell me what the company thinks has been the effect of the mine on:

IMPACT OF THE MINE ON ENVIRONMENTAL ELEMENTS

	Negative Impacts	Zero Impacts	Positive Impacts
Elements	**-5 -4 -3 -2 -1**	**0**	**+1 +2 +3 +4 +5**
Water & Sanitation			
Air Quality.			
Noise & Ground/ Vibration			
Diseases			
Land Pollution			
Built Environment			

Please justify your responses:

4b. What **other** factors does the company think have contributed to changes in these environmental elements mentioned in 4b

E. ENSURING SUSTAINABLE MINING IN THE COMMUNITY

5. What is the position of your company in the current concept of sustainable development?

5b. What venture/investment has the company established in the community other than the mine itself?

5c. In the company's opinion, what will happen to the economy of the community when the mine is gone

5d. Under the basis of (5c) what should be done to sustain the tempo of the community?

5e. Some schools of thought believe that the recent public outcry against mining/gold mining industry in Ghana is mainly a function of the industry's mode of operation. What is your company's view on this?

F. COMMUNITY DEVELOPMENT EXPECTATIONS

6. What development benefits has the **presence** (direct and indirect) of the mine brought to the community (any documented proof of these)?

6b. How would the company **rate** the development expectations of the community towards the mine?

- Very High
- High
- Moderate
- Low
- Very low

Please justify your response:

6c. Some companies share the opinion that the impact of royalty payment on community development will be much more felt if paid **directly to** the communities than **through** the central government? What is the position of your company on this idea?

G. COMPANY/COMMUNITY CO-EXISTENCE/RELATIONS.

7. What are the main sources of friction or conflict between your company and the communities?

7b. In your company's opinion what factors enhance receptivity/acceptability of mining establishments to communities?

7c. How do you assess the existing relations between your company and the community?

7d. What factors have led to these relations as mentioned in (7c)?

7e. Suggest ways that could enhance/further enhance relations between your company and the community?

H. COMMUNITY APPRAISAL OF THE MINE

8. Comparing the adverse effects with the positive impacts of your operations, do you think the community welcome your company in the area Yes [ ] No [ ] No Response [ ]

Please Justify Response:

Thank you for your time and co-operation. Do you please have any question for me?

Appendix B: Ethics Approval

FACULTY OF SCIENCE, UNIVERSITY OF ALBERTA
Grants, Fellowships and Contracts Ethics Statement

TITLE OF APPLICATION:	
Community Perceptions of Mining: An Experience from Western Ghana	
NAME OF APPLICANT:	**FACULTY AFFILIATION:**
Emmanuel Ato Aubynn	Earth and Atmospheric Sciences
NAME & AFFILIATION OF PRINCIPAL INVESTIGATOR IF DIFFERENT THAN APPLICANT:	
Dr. Theresa Garvin and Dr. Karen E. Smoyer-Tomic, Earth and Atmospheric Sciences	

INSTRUCTIONS: Please complete each section. Write "nil" or "n/a" (not applicable) rather than leaving a blank space. You may respond by citing page and paragraph numbers in the proposal if the material is clearly distinguishable and constitutes a full answer. *Use additional sheets as necessary.*

1. *Describe in detail the source of participants/data for the proposed research and significant participant characteristics (e.g., age, institutionalization, physical/mental health, etc.). Describe the manner in which participation will be solicited (attach copies of printed advertisements, transcripts or oral solicitations, etc.) and the nature of any inducements/promises offered for participation.*

   My study will be based on data collected from two sources: (A) printed documents and (B) semi-structured interviews with key informants.

   (A) Printed Documents. Printed documents will be examined to construct histories of the mining companies and community experiences. These will be used to construct case histories for each community. Examples of printed documents to be used include:
   a. Sustainable Production and Consumption of Natural Resources: African Issues, (1999); By Tutu, Kwadwo.
   b. Ecology and Sustainable Development: Reuniting Ecology and Economy in Sustainable Development, (1997); By Beaton, Charles R. and Mayer, Chris.
   c. The Mining Industry and the Environment: UST—IDRC '97 (1996); By UST—IDRC Environmental Research Group
   d. Liberalism and Economic Adjustment in Resources Frontiers: Land Based Resource Alienation and Local Response: Reflection from Western Ghana,(1996); By Aubynn, A.K.

   Additional printed documents will be used as they become available.

   (B) Semi-Structured Interviews. Three types of participants will be involved in the key informant interviews: Managers of mining companies, Community Leaders, and Members of the public (which include inhabitants in mining communities in Ghana). Mine Managers and some Community Leaders will be approached through formal written letters, with a follow-up in person requesting participation. Interviews will be open-ended and tape-recorded (with

respondent's permission). Some Community Leaders and all Members of the public will be approached in person with requests for participation. According to the participant's preference, interviews will be held immediately or scheduled for a future time and place. Once again, interviews will be open ended and tape recorded (with respondent's permission). For reasons of confidentiality, no individual identifiers will be used in the interview. In all interviews, participation will be voluntary and no one will be compelled or coerced to participate. As a result, no individual promises, inducements or rewards will be made.

2. *How will you deal with the issues of informed consent and continuing voluntariness of participation in the proposed research?*

All participants will receive an overview of the project and full disclosure of how their information will be used in the research. (See sample letter below, and interview schedules). For those with whom direct face-to-face approach will be used (such as Community Leaders and Members of the public), briefings will be made prior to participation.

It will be made clear that participation will be at the discretion of the respondents and will be voluntary in all respects. Agreement to participate will thus be taken as consent. Participants will be given the opportunity to terminate the interview at any time.

3. *If concealment and/or deception is to be employed, provide explicit justification Indicate how and when participants will be informed of the concealment and/or deception.*

I shall not employ concealment and/or deceptive methods to solicit information for this project.

4. *Describe the nature of any risks to the physical or psychological well-being or integrity of participants that might arise from your procedures, and discuss your justifications, safeguards, and resolutions for these risks where appropriate.*

Because an interview method will be employed, and the interview will take place at the location of participant (dwelling place or offices), there will be little or no risk of damage to physical well-being. Interview questions will solicit opinions and understandings of local events and therefore may result in personal turmoil or conflict during the process of interview. However, such effects should be mediated by the short-term nature of the interview and the assurance of confidentiality in responses.

There is the minor potentiality for community conflict based on the controversial nature of mining in small communities in Ghana. Every effort has been made to ensure that questions asked during the interview process will solicit information about existing community divisions rather than create new ones. Also some communities have bitter history with mining companies which they may not like to remember and so delving into past conditions of communities (a vital component of the research) may bring some psychological stress to Community Leaders and Members. Such impact will be minimized through reassurances of confidentiality of responses and assurances that all information gathered will be used solely for academic purposes.

5. *Describe how you will grant anonymity to participants and how responses will be kept confidential. If names or other identifying information are coded with data, describe how access to data is limited and safeguarded. Indicate who will have access. If appropriate, describe how consent is obtained from*

participants for exceptions to anonymity /confidentiality. If data are to be taken from existing sources, discuss the implications of pre-existing (implicit or explicit) guarantees of confidentiality/anonymity.

This research will ensure confidentiality of responses to all participants. No names will be used in the coding of data. Researchers recognize that anonymity cannot be guaranteed to all respondents because of the nature of the sampling frame. For example, Community Leaders and Mine Managers are well-known within the business community and the small mining areas, therefore this project cannot ensure complete anonymity. However, confidentiality of responses will be guaranteed by using pseudonyms for individuals and community names during interview, data recording and analysis processes. Only generic identifying data (for example "Community leader, Village 1") will be associated with particular data.

Printed documents used will be part of written records and therefore issues of confidentiality will not apply. All data to be solicited, such as EIS/EMP, Concession maps, socio-economic contributions, company profiles, and so on, are all documents that have already been made public and so need no confidentiality.

6. *Indicate when participants will be debriefed, and describe the extent of debriefing.*
   Where participants show interest in the outcome of the research, copies of the results of the research will be provided at no cost to the participant.

7. *Describe any apparatus, element of the physical environment, substance or other materials that could cause harm to a participant if a malfunction, misuse, accident, allergic reaction, or side-effect were to occur. If the participant comes into contact with a potentially hazardous apparatus or material, who will be responsible for checking for defects/malfunctions, and on what schedule will inspections be made? If participants taste, ingest, or have applied to them, or come into contact with some substance that could cause harm, please document your safeguards.*

   The only apparatus to be used is a tape recorder. It is highly unlikely to cause harm to any participants.

8. *Describe qualifications of research personnel if special conditions exist within the research that could cause physical or psychological harm or if participants require special attention because of physical or psychological characteristics, or if made advisable by other exigencies.*

   Not Applicable.

9. *Please attach copies of any questionnaire, interview schedule, test, stimulus materials, and other such items necessary for competent review of your application.*

   Questionnaire attached

SIGNATURE: /SIGNED/
(EMMANUEL ATO AUBYNN ID #1022372)

DATE: **20TH OCTOBER, 2000.**

Appendix C: Tables of Research Findings

Table C-1. Community A Expectations of Mining and Company Responses.

#	Community A	Company A Response
1	• Employment for all • Development assistance – annual project • Basic infrastructure – good roads; clinic; piped water; electricity; schools, toilet; market facility; community center • Boost in local trade • Honour promises • Regular consultation • On the job training – mine site • Adequate Compensation – land & other resources. • Scholarship for students • Set up other economic ventures	• Employment for all – impossible; 70% of our employees are locals; locals lack sufficient education & skills. • Dev. Assistance – voluntary; pay royalties; minerals owned by the state. • Infrastructure – government also responsible. • Local trade – outside our control; we have opened up the community by roads. • Promises – have honoured our promises; community has its own manufactured expectations. • Consultation – doing it but suspended due to representatives' self-interest. • Job training – doing it; 40 locals employed and trained – are now mill supervisors. • Compensation – adequate; land is not compensated, by the laws of Ghana; community mismanages compensation moneys. • Scholarship – intend to implement. • Economic ventures – provide opportunities for take-off; our objective is to mine gold.
2	• Contract to local people • Skill development training • Housing workers in community • Expected to co-exist with small-scale mining	• Contract – local contractors provide services to company, i.e. supply bullion boxes, sowing company clothing. • Skill training – have been doing it; have trained 50 youth in business skills, snail, grasscutter & mushroom farming • Workers in community – cannot force them to live in community; have provided housing for senior mine workers in the community. • Small-scale mining – have co-existed with them; policy of "live and let live", not "live and let die".
3	• Expecting large room sizes for resettlement buildings • Watering of streets in community	• Room size – standard size provided. • Watering – our responsibility covers haulage roads, not streets.

Table C-2. Community B Expectations of Mining and Company Responses.

#	Community B	Company B Response
1	• Employment for all	• Employment for all – impossible; 40% of locals employed as casuals; locals lack sufficient education & skills.
	• Development assistance	• Dev. assistance – voluntary; pay royalties; minerals owned by the state.
	• Basic infrastructure – good roads; clinic; piped water; electricity; schools, toilet; market facility; chief palace	• Infrastructure – government also responsible; cannot provide electricity because it is uneconomical
	• Boost in local trade	
	• Honour promises – especially electricity	• Local trade – outside our control; we have opened up the community by roads.
		• Promises – have honoured our promises; community has insatiable expectations – cannot provide electricity.
	• Regular consultation	• Consultation – doing it.
	• On the job training – mine site	• Job training – costly; cannot do it.
	• Adequate compensation – affected resources	• Compensation – adequate; higher than government approved rates; land is not compensated, by the laws of Ghana; community mismanages compensation.
	• Scholarship for students	• Scholarship – have started.
	• Set up other economic ventures	• Economic ventures – provide opportunities for take-off; our objective is to mine gold;
2	• Contract to local people	• Contract – local contractors provide services to company-supply bullion boxes
	• Skill development training	• Skill development – intend to implement.
	• Housing workers in community	• Workers in community – cannot force them to live in community; have provided housing for senior mine workers in the community; locals not receptive to company workers.
	• Improvement in living standard	• Living standard – outside company's control; community's own behaviour.
3	• Community becoming tourist destination	• No response
	• Halt youth migration to cities	• No response

Table C-3. Community C Expectations of Mining and Company Responses.

#	Community C	Company C Response
1	• Employment for most locals • Development assistance – annual project; endowment fund • Basic infrastructure – road maintenance; clinic; piped water; electricity; schools, toilet; market facility; community center • Boost in local trade • Honour promises • Regular consultation • On the job training – mine site • Adequate compensation • Scholarship for students • Set up other economic ventures	• Employment – impossible; do not discriminate; every Ghanaian is a local resident; employed locals as casuals; locals lack sufficient education & skills. • Dev. assistance – voluntary; pay royalties; minerals owned by the state; fund impossible because unsustainable. • Infrastructure – government and community themselves also responsible. • Local trade – No response. • Promises – have not promised them anything. • Consultation – doing it quarterly. • Job training – costly; have pool of qualified labour outside the community. • Compensation – adequate; land is not compensated, by the laws of Ghana; community mismanages compensation. • Scholarship – No response. • Economic ventures – even coal mining companies are now divesting their interests in other ventures; our objective is to mine gold.
2	• Expected to co-exist with small-scale mining • Improvement in living standard	• Small-scale mining – not feasible; miners will overstep their boundaries into our concession; costly to control them. • No Response.
3	• Money to resettlers • Bussing community members to & from Tarkwa without charge.	• Money – impossible; compensated all properties (buildings & farms). • Bussing – company insurance does not cover them; cannot risk; unsustainable.

Row #1 = Expectations and responses common to all communities and companies.
Row #2 = Expectations and responses common to 2 communities and companies.
Row #3= Expectations and responses unique to a community and company.

Table C-4. Rationale for Community A's Expectations of Company A

Theme	Community A	Company A's Perception
Impacts (Negative)	• Destroying future asset (land) – sources of our revenue. • Bear the greatest impact – need to be compensated. • Social insurance – against post-closure effect. • Resettlement affected us – should help us recover. • Lost of environmental resources i.e. animals, trees etc. – must compensate us for the loss.	• Community wants compensation for mining operation.
Responsibility	• Parents – they are our parents; should cater for our needs. • Government neglect of rural communities – companies are surrogate government. • It is their corporate social responsibility – done everywhere.	• Community perceives that mining companies are rich. • Community perceives that companies are donors. • Community's expectations are informed by what happens elsewhere.
Benefit Sharing	• Own the resource – contribute resource to the enterprise; we are also stakeholders. • Host the mine – as gesture for hosting the mine. • The only major economic activity in the area. • See no benefits from royalties paid to the government	• Greed – everyone wants a pie from the mine. • Community sees company as a source of high salary jobs. • Community perceives that mining companies are rich.

Table C-5. Rationale for Community B's Expectations of Company B

Theme	Community B	Company B's Perception
Impacts (Negative)	• Destroying future asset (land) – sources of our revenue. • Bear the greatest impact – need to be compensated. • Social insurance – against post-closure effect. • Destruction of communal spirit – affected our development.	• No response.
Responsibility	• Parents – they are our parents; should cater for our needs. • Government neglect of rural communities – companies are surrogate government. • It is their corporate social responsibility – done everywhere.	• The company has met their expectations so they want more. • Community does not have sympathy for the mine.
Benefit Sharing	• Own the resource; contribute resource to the enterprise; we are also stakeholders. • See no benefits from royalties paid to the government.	• Community perceives that mining companies are rich • Community perceives our presence offers opportunity for their development.

Table C-6. Rationale for Community C's Expectations of Company C

Theme	Community C	Company C's Perception
Impacts (Negative)	• Destroying future asset (land) – sources of our revenue. • Social insurance – against post-closure effect. • Resettlement affected us – should help us recover.	No response – do not believe this is why they have high expectations.
Responsibility	• Parents – they are our parents; should cater for our needs. • Government neglect of rural communities; companies are surrogate government. • It is their corporate social responsibility—done everywhere.	• Communities, by nature, have insatiable demands and expectations.
Benefit Sharing	• Host the mine—as gesture for hosting the mine. • See no benefits from royalties paid to the government.	• Community perceives that mining companies are rich. • Community perceives our presence offers opportunity for their development.

Table C-7. Community A's Evaluation of Company A's Economic Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Agriculture	7	4	1	1	0	1	0	0
Trade & Commerce	7	1	0	0	0	1	2	3
Employment/Job Creation	7	0	1	2	0	2	0	2
Income Level	7	1	1	0	0	2	2	1
Socio-Econs. Infrastructure	7	0	0	0	0	0	2	5
Cost of Living	7	2	0	5	0	0	0	0

N=Number of Respondents. Highly Negative----------Neutral---------Highly Positive

Table C-8. Community B's Evaluation of Company B's Economic Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Agriculture	7	4	0	1	0	0	0	2
Trade & Commerce	7	1	1	0	2	0	0	3
Employment/Job Creation	7	1	0	1	1	1	3	0
Income Level	7	0	0	0	2	1	0	4
Socio-Econs. Infrastructure	7	1	0	1	0	2	0	3
Cost of Living	7	2	3	2	0	0	0	0

Table C-9. Community C's Evaluation of Company C's Economic Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Agriculture	7	2	1	1	0	1	1	1
Trade & Commerce	7	1	0	0	1	0	4	1
Employment/Job Creation	7	2	0	0	0	3	1	1
Income Level	7	1	1	0	0	2	1	2
Socio-Econs. Infrastructure	7	2	0	0	0	1	1	3
Cost of Living	7	0	2	0	5	0	0	0

Table C-10. Total Evaluation of Economic Impacts (Community A +B+C)

Indicators	Negative Impacts	Neutral Impacts	Positive Impacts	Total
Agriculture	15	0	6	**21**
Trade & Commerce	4	3	14	**21**
Employ't/Job Opp'ty	7	1	13	**21**
Personal Income level	4	2	15	**21**
Socio-Econs Infrast.	4	0	17	**21**
Cost of Living	16	5	0	**21**
Total	**50**	**11**	**65**	**126**

Table C-11. Community A's Evaluation of Company A's Social Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Education	7	0	0	0	0	0	0	7
Housing/Settlement	7	0	0	0	0	0	2	5
Land Issues	7	4	1	2	0	0	0	0
Security/Crime	7	2	1	3	1	0	0	0
Cultural Values	7	0	2	4	1	0	0	0
Population	7	0	0	2	0	0	2	3
Health	7	1	0	0	3	0	3	0

N=Number of Respondents. Highly Negative----------Neutral---------Highly Positive

Table C-12. Community B's Evaluation of Company B's Social Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Education	7	0	0	0	0	2	2	3
Housing/Settlement	7	0	0	0	0	1	1	5
Land Issues	7	4	1	2	0	0	0	0
Security/Crime	7	5	1	1	0	0	0	0
Cultural Values	7	1	0	3	1	0	0	2
Population	7	2	0	0	0	2	1	2
Health	7	2	1	0	0	1	0	3

Table C-13. Community C's Evaluation of Company C's Social Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Education	7	0	0	0	1	1	2	3
Housing/Settlement	7	0	0	0	0	1	3	3
Land Issues	7	0	3	2	2	0	0	0
Security/Crime	7	1	0	2	4	0	0	0
Cultural Values	7	1	0	1	3	0	2	0
Population	7	0	1	0	0	1	1	4
Health	7	1	0	0	0	0	1	5

Table C-14. Total Evaluation of Social Impacts (Community A+B+C)

Indicators	Negative Impacts	Neutral Impacts	Positive Impacts	Total
Education	0	1	20	**21**
Housing/Settlement	0	0	21	**21**
Land Issue	19	2	0	**21**
Security/Crime	16	5	0	**21**
Cultural Values	12	5	4	**21**
Population	5	0	16	**21**
Health	5	3	13	**21**
Total	**57**	**16**	**74**	**147**

Table C-15. Community A's Evaluation of Company A's Environmental Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Water & Sanitation	7	0	0	1	0	1	2	3
Air Quality	7	1	0	1	5	0	0	0
Noise & Land Vibration	7	1	1	2	3	0	0	0
Diseases	7	1	0	1	4	0	0	1
Land Degradation	7	2	2	3	0	0	0	0
Built Environment	7	0	0	0	0	0	1	6

N=Number of Respondents. Highly Negative----------Neutral---------Highly Positive

Table C-16. Community B's Evaluation of Company B's Environmental Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Water & Sanitation	7	3	2	0	1	0	1	0
Air Quality	7	5	1	0	1	0	0	0
Noise & Land Vibration	7	5	0	1	1	0	0	0
Diseases	7	2	2	1	2	0	0	0
Land Degradation	7	5	0	2	0	0	0	0
Built Environment	7	0	0	0	0	2	0	5

Table C-17. Community C's Evaluation of Company C's Environment Impact

Indicators	N	-4/-5	-3	-1/-2	0	1/2	3	4/5
Water & Sanitation	7	2	1	0	0	1	2	1
Air Quality	7	0	2	1	4	0	0	0
Noise & Land Vibration	7	2	1	2	2	0	0	0
Diseases	7	0	3	0	4	0	0	0
Land Degradation	7	4	2	1	0	0	0	0
Built Environment	7	0	0	0	0	0	3	4

Table C-18.Total Evaluation of Environmental Impacts (Community A+B+C)

Indicators	Negative Impacts	Neutral Impacts	Positive Impacts	Total
Water & Sanitation	9	1	11	**21**
Air Quality	11	10	0	**21**
Noise&Land Vibration	15	6	0	**21**
Diseases	10	10	1	**21**
Land Degradation	21	0	0	**21**
Built Environment	0	0	21	**21**
Total	**66**	**27**	**33**	**126**

Table C-19. Net Results of Community Evaluation of Impacts of Mining*

	Community A	Community B	Community C
Indicators	**Net Economic Impacts**		
Agriculture	-20	-11	-5
Trade & Commerce	16	14	13
Employment/Job Opp'ty	5	5	5
Personal Income Level	5	18	8
Socio-Econ. Infrastructure.	28	8	9
Cost of Living	-15	-23	-6
	Net Social Impacts		
Education	30	22	19
Housing/Settlement	28	25	23
Land Issue	-24	-24	-12
Security/Crime	-18	-27	-8
Cultural Values	-10	-1	1
Population	15	6	20
Health	5	3	20
	Net Environmental Impacts		
Water & Sanitation	17	-16	-1
Air Quality.	-7	-26	-7
Noise & Land Vibration	-9	-25	-16
Diseases	-2	-18	-9
Land Degradation	-21	-27	-25
Built Environment	30	26	26

* Net Results were calculated as the sum of all positive values (social benefits), minus the sum of all negative values (social cost) that participants placed on the impact indicators/scale

Table C-20. Development Benefits from Companies

Community 'A'	Community 'B'	Community 'C'
Electricity	Eight street lights from generating plant	Construction of JSS* workshop
Maintenance of roads	Maintenance of roads	Sporadic road maintenance
Market facility	Two market sheds	One market shed
Complete school building	Four classroom school block	Building materials for schools
Piped water	Four boreholes with pumps	Electricity (shared cost)**
Quality houses (resettlement)	Two toilet facilities	Quality houses (resettlement)
Garbage collection facility	Health service from Company B clinic	Health center
Training for farmers	Bussing students to exams centre	One toilet facility
Skill training for fifty youth		Five boreholes
Chief Palace		
Financial support for teachers		
Four toilet facilities		
Busing of school children		
Job training for forty youth		

Computed from Interview Data (March – July, 2001)

*JSS means Junior Secondary School.

**The company shared the cost of electricity provision with the community.

Table C-21 *Other Sources of Company/Community Contention* Conflict.

Communities	Companies
Neglect for community development	When company employs "other Ghanaians"
Inadequate water supply/water crises	Delay of farm compensation
Environmental pollution	Land deprivation from small-scale miners
Ban from farming on own land-speculative	Negative Perception-lack of information
Breach of resource development promises	Speculative farming on companies' concession
Poor communication strategy	Tools to force companies to yield to their request
Attitudes of community relations officers	Delay in implementing some decisions
Lack of concern for community grievances	Environmental pollution
	Lifestyle differentiation and jealousy against mine workers

Appendix D: The Researcher

This section contains a brief overview of my motivation in selecting the research topic, as well as a declaration of my position, values, beliefs, and interests that helped shape the meaning and interpretation of the data. It is also to situate myself in the research. Schwandt (1994) stated that, "the act of inquiry starts with the issues and/or concerns of participants and unfolds… that eventually leads to a joint (among inquirer and participants) construction of a case" (Schwandt, 1994:128-129).

Qualitative researchers are often urged to write themselves into the research (Limb and Dwyer, 2001; Miles and Huberman; 1994), because the researcher bears the imprint of a larger culture and society, and because entering into the research relationship implies personal as well political associations (Limb and Dwyer, 2001; Miles and Huberman, 1994). In this study, I acknowledge that all scientific research begins with the observer's curiosity and continues on its way bolstered and nourished by these values. Perception is the process through which we assign meaning to the world. We never perceive objectively; there is always a subjective element when we add meaning drawn from our experience to what we perceive. It is thus not possible to keep one's research pure, "objective," and untarnished by one's interests or values (Miles and Huberman, 1994; Guba and Lincoln, 1994; Schwandt, 1994). Therefore, it is preferable to search for, recognize and state such bias (Limb and Dwyer, 2001; Miles and Huberman, 1994). Identification and acknowledgement of underlying values will enable readers to assess the appropriateness and usefulness of the analyses (Guba and Lincoln, 1994). In light of these influences, I present briefly below the development of my interest in the research issue and my personal beliefs on mining company/community issues.

I was born and raised in a village near Community A in the Wassa West District of the Western Region, and so my interest, beliefs, values, and knowledge of the research problem are the sources of motivation for the study. As a native of the study District, I have witnessed a series of tensions and clashes between some large-scale gold mining companies on the one hand, and their neighbouring communities on the other. These clashes, from my own experience, were precipitated by a combination of the following: a perception that mining companies were neglecting the community's developmental needs; excessive surface operation and associated environmental disruption; lack of consultation in the release of community land for mining; dispossession of communities from their sources of livelihood with inadequate compensation; perceived disrespect of communities by mining operators; mining companies' poor communication strategies with their communities; a perception that mining companies were trying to impose their will on communities; failure on the part of companies to honour resource

development promises made to communities during the public hearing stage of mine development; and many other issues both major and trivial. Several questions emanated from my observations and experiences in the area. To find answers to these questions, I conducted a study into the effect of mining activity on communities for my B.A (Hons.) Degree in 1998. I conducted this research through only one lens, focused on community concerns more than on mining company viewpoints. Also, only one company and its communities were chosen for the study, limiting my ability to provide a broad, comparative, and comprehensive analysis of the problem.

After graduation from the University of Science and Technology, Kumasi, Ghana, in 1998, I had an opportunity to work for Company A as community and public relations facilitator (consultancy) for three years. It was through my corporate responsibilities that I realized the need to undertake an in-depth study into the relationship between companies and their communities. I observed that both the mining company and its communities have totally different perceptions about each other and their relationship. I realized this relationship does not augur well for the co-existence of both parties, and hence threatens the sustainability of both the mining companies and the mining communities. Mutually acceptable relations and harmonious co-existence between the two are necessary for sustainability. The beliefs and values I bring to the research, therefore, are that society needs to harmonize the commercial, economic and social objectives of mining with environmental protection and community viability if sustainable development in resource frontiers in Ghana is to be attained. This belief motivated me to undertake this inquiry more formally for my M.Sc. research at the University of Alberta, Edmonton, Canada, to find out how mining companies and their neighbouring communities in Ghana's Wassa West District could negotiate acceptable relations for sustainable development. My belief and orientation therefore influenced the choice of the investigative approach adopted for the inquiry.

Qualitative researchers are often required to reflect on how their personal characteristics and values influence the interpretation of the research. First, my work experience with Company A may have influenced my interpretation of the results. However, I worked hard to ensure a balanced analysis of the study. Nonetheless, I accept any biased interpretation readers might identify as I cannot completely de-couple my values from the data.

Second, my educational background may have influenced the power relationships between myself as researcher and the participants during data collection exercise. This may have perhaps affected the data I collected from participants. Nonetheless, I was aware of the asymmetrical power relations between a highly educated person (myself) and less educated community participants. I attempted to achieve a symmetrical power relations by adopting a

conversational approach in my interaction with participants. I admit I may not have been able to achieve a fully symmetrical power relation with community participants. This imbalance may also have influenced the information participants supplied for the study.